



TERMS OF REFERENCE

FEASIBILITY STUDY FOR AGRICULTURAL DEVELOPMENT PROJECTS

Prepared by:



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THE AGRICULTURAL DEVELOPMENT PROJECTS AIM TO DEVELOP MEDIUM TO LARGE SCALE AGRICULTURE AND VALUE-ADDED PROJECTS. THE PRIMARY GOAL IS TO ADDRESS IMPORT-SUBSTITUTION BY INCREASING AGRICULTURAL PRODUCTION, EXPORT DIVERSIFICATION AND JOB CREATION, IN THE ECONOMY.

THE TERMS OF REFERENCE SHOULD CONCEPTUALIZE DEVELOPING, EXECUTING AND DELIVERY OF AGRICULTURE LAND TO INTERESTED INVESTORS.

Feasibility Study for Agriculture Development Projects

Terms of Reference - Developing Proposal for Agricultural Development Projects

Go-Invest is inviting qualified consultants to submit Expressions of Interest for the design (concept) and creation of land development proposals for Developing Agriculture Development Projects to promote agriculture investment in Guyana. The intent is to develop medium to large scale agriculture and value-added development projects to address import-substitution, export diversification and job creation in the economy. It will take into consideration the government's policy and strategy for the agriculture sector development, and food sustainability among other policy initiatives.

The proposals will address elements for conceptualizing, developing, executing and delivering land with optional ideas for projects to interested investors.

The proposed agriculture development projects should be viewed as tools for implementing solid and carefully planned programs and initiatives aimed at improving coordination and providing the platform for improving agri skills and knowledge, encourage the engagement of local farmers and sustainable financing.

1. Terms of Reference:

General

To identify suitable lands for medium to large scale agriculture and value-added development projects to address import-substitution, export diversification and job creation in the economy. Also, to identify at least five optional crops and their value-added elements, best suited for the proposed lands, research their market potential locally and for export, make known all bilateral and international agreements signed between the Government of Guyana and other Countries or economic blocks.

1.1 Literature Review

- a) Perform literature review of current policies and strategies; and past and present performances of the Agriculture Sector and agriculture development projects.

1.2 Land, Land Development and Infrastructure

- a) Research and Identify suitable vacant lands ranging between 10,000 to 15,000 acres in size, for establishing an estimated 5 projects of such size. The location should allow for a least-cost development of drainage and irrigation infrastructure, access to markets, and water resource, yields or profitability;
- b) Develop estimated Bills of Quantity for the land development, construction works, and any other infrastructure deemed necessary for the successful

agricultural operation in each area identified . (This information will be used to validate assumptions of profitability and return);

- c) Develop Maps of the Locations showing amongst others: - the farms layout including topography, field sizes with defined boundaries, drainage and irrigation canals and embankments, access roads, access to viable fresh water resource, source for drainage, topography of the location, geo-referenced soils investigation, creating a soils map from data gathered above, superimpose same on site location map and Identify the closest bench-mark to the location as recognized by the Guyana Lands & Surveys Commission;
- d) Provide viable designs for all agricultural land development and infrastructural work including bush clearing, primary and secondary structures for water control and management, drainage and irrigation canals and their embankments, farm beds and inter-bed drains, tillage, and a fair weather access road (capped with crusher-run) compile infrastructure data (access to land, roads, proximity to other required infrastructure such as ports, markets, etc.).

1.3 Soil and Water Analysis

- a) Execute a soils analysis and profiling for determining crops, aquaculture or livestock suitable for the location, providing a geo-referenced position for each of the soils samples taken at an estimated 50 – 100 acres interval, and make recommendations for the different crops to be grown in the area;
- b) Compile all relevant technical data on soil to inform agricultural investors on land use such as: - type, PH content, moisture retention properties, vegetation pattern, crop suitability , seasonality etc.;
- c) Execute a water analysis for available water resources and profiling for determining crops, aquaculture or livestock suitable for the location;
- d) Compile all relevant technical data on water to inform agricultural investors on land use including but not limited to quantity and quality, potential drought period and mitigation measures, and mitigation measures to manage water quality or contamination etc.;

1.4 Meterology

- a) Compile all relevant meteorological data to inform agricultural investors on land use such as: - temperature, rainfall, humidity, sunlight, chill hours hours etc. for each location and per day, etc.
- b) to consider the locations' climate scenario and therefore structure development plans to prevent lack of project sustainability and project failures.

1.5 Environmental factors and considerations

- a) Provide relevant guidance on environmental requirements and considerations to inform agricultural investors on land use, of the identified lands.

1.6 Review the proposed lands and identify at least five (5) Optional Crops and their value-added elements, best suited for the proposed lands, research their market potential locally and for export;

1.7 Demographic and Market Information

- a) Compile and provide demographic data for each location including but not limited to: -

- i. Labour - quality of labour including proximity to workforce, estimated workforce, technical ability of available workforce, labor rates for the sector etc.;

- ii. Agricultural inputs: - seedings, fertilizer, weediside, pesticide;

- iii. Agricultural institutions and support services;

- iv. Other Supply Chain essentials such as machinery and equipment sale, servicing, rental etc.;

- v. Security, and others deemed necessary.

- b) Estimate the total production potential for each of the crops / livestock and their value-added components as identified above;

- c) Compile current market and farm-gate prices for the Crop or livestock proposed;

- d) Provide information on all Bilateral and International Agreements signed between the Government of Guyana and other Countries or Economic Blocks.

1.8 Conceptualize designs for crop and / livestock development projects for identified lands and compute the financial and economic cost benefit analysis for each;

1.9 Identify and provide **optimal** development cost for value-added components (i.e Processing Facilities) for each of the crops identified, including procurement, housing, utilities etc. and conduct the financial and economic cost benefit analysis for each

1.10 Compute and compile best estimate Crop Conversion Ratio to Value-Added Product for each of the Crops Identified (Input:Output);

1.11 Provide details on certification standards for the different crops recommended and their standards requirements for potential markets;

- 1.12 Identify and advise on the agency and procedures to conduct Monitoring & Compliances;
- 1.13 Identify and quantify macroeconomic benefits to the Guyanese economy at a general level;
- 1.14 Identify and compile any other information for the benefit of this Project;
- 1.15 Share with GO-Invest all requested information in hard and soft copy, as exclusive owner of information.

APPENDIX I

Literature Review

For much of the period from independence in the 1960's until the late 1980's, Guyana pursued a series of inward looking policies where the State was deeply involved and exercised firm control of most areas of the economy including the agricultural sector. Tight controls were in place with respect to imports, foreign exchange and private sector activities.

In 1996 and in response to the WTO, the Government of Guyana outlined the National Development Strategy (NDS). The policy objectives articulated were aimed at the transformation of the agricultural sector to increase its productivity, output, production and competitiveness

With reference to the non-traditional agricultural sub-sector, the strategy was to give greater attention to research and development as it relates to agronomic practices, water management and germplasm, farming systems and mechanization. Marketing with an emphasis on market information, advisory services, market facilitation, postharvest technology and agro-processing, and the establishment of rural development centres and cooperatives were also included.

The specific strategies proposed for the non-traditional included elements on: -

- (i) **R&D** on selected commodities on geographic delineated zones
- (ii) **Farming systems** research including farm mechanization
- (iii) **The National Science Research Council** (NCRS) to be resuscitated
- (iv) Farmers and private sector to be involved in setting the **research agenda**
- (v) **Extension Services** - Establish computerized information system
- (vi) **Marketing** - An advisory services agency to be established to provide marketing intelligence (including market opportunities) to farmers on a timely basis

- (vii) **Rural Development** - The establishment of rural development centres and agricultural cooperatives
- (viii) **Education and training** - Agriculture to be re-introduced into the primary school curriculum, the FTC to promote awareness of technological advances to farmers and training in postharvest technology
- (ix) **Water Management** - Water management, the control of weeds, pests and diseases, fertilizer application and soil fertility, land preparation, planting methods, harvesting, and crop suitability for various ecological and climatic zones to be specifically considered
- (x) **Germplasm supply** - the aim was to achieve self-sufficiency in germplasm supply
- (xi) **Livestock** - the establishment of a National Livestock Development Agency and the production of alternative energy feeds (low quality rice, corn, sorghum, or cassava to be utilized)¹

The agricultural land policy initiatives outlined in the national development strategy focused on the following: (i) Issues related to ownership and title (ii) Improvements in efficiency of land use (iii) Increasing access to agricultural lands for production and expansion (iv) Improvements in transparency and distribution of the allocation process.

Commodity-Specific Policies: At the commodity specific level, sugar and rice, the two most important commodities for the country, the industries had formulated their own set of policy measures/instruments to address the challenges of the increased competition arising from the erosion of preferences in the EU market. The proposals for both commodities comprehensively addressed issues that were considered key in enhancing and sustaining productivity and efficiency, leading to greater international competitiveness. For the non-traditional sub-sector, generally the strategies proposed included greater attention to R&D, agronomic practices, water management, germplasm, farming systems, mechanization and marketing (emphasis on market information). They also included advisory services, market facilitation, postharvest technology and agro processing, and the establishment of rural development centres and cooperatives.²

The current approach of development projects

The Guyana economy is still heavily dependent on the primary agricultural sector. Rice and sugar remain the two most important agricultural commodities in Guyana on the basis of their respective contributions to agricultural exports, earnings, farm incomes employment and food security.

¹ - Source; National Development Strategy <http://www.sdn.org.gy/nds/chapter12.html>

² The RTP Competitiveness Study: Review of Agricultural Policies in Guyana

In the last decade, non-traditional crops have played an increasing role as contributors to GDP, to the extent of having surpassed contributions made by sugar. Given this trend, proportionate emphasis should be placed on the sector, recognizing its continued overall contribution to the economy and its foreign exchange earning potential, in the context of a declining sugar sector.

In an effort to meet the challenges of competition as a result of liberalization of markets and the erosion of preferences, the government has been attempting to remedy the situation by seeking to improve productivity and efficiency in the traditional export crops while promoting non-traditional crops.

Guyana also produces a range of domestic food crops as well as livestock, some of which are exported while the major part is utilized for domestic food consumption. The livestock sub-sector includes dairy and beef cattle, swine, sheep and goats. The fishery sub-sector is reasonably well developed and is exploited by both Guyanese fishers as well as multinationals. Exports from this sub-sector are considered substantial. The Aquaculture Industry is underexploited and the potential to have a major impact on the country's GDP if strategic policies are drafted to benefit those willing to sustainably invest in the establishment of fresh water fish and shrimp farming for export. Food crop production includes a variety of root crops (cassava, eddoes, and sweet potato), plantain, cowpeas as well as vegetables. Fruit crops such as citrus, pineapples, mangoes, papaya and carambola are also grown.

Production technologies are mostly traditional and productivity is generally below optimum levels. Small farms with low levels of technology, low volumes of output and high production costs exist side by side with modern commercial farms more appropriately structured and equipped to become competitive. Although mechanization is widespread in sugar and rice, some agricultural sub-sectors are labour-intensive. With respect to agro-processing, this industry is relatively underdeveloped. There is scope for significant entrepreneurial activity here, given the wide range of agricultural raw material that the country is capable of producing. However, the realization of this potential requires a serious research and development thrust.

Expertise Required

The Consultant / Consulting Company is required to possess the following:-

1.1.1 Qualifications

- Master's Degree preferably in Agricultural Policy, General Agriculture, Agricultural Economics, or a related discipline.

1.1.2 General Professional Experience

- At least five (5) years' practical experience in developing agricultural policies and projects;
- Experience with past and current national policy and development plans and sector strategic plans relating to agriculture development and in particular sustainable development of crops and livestock with reference to, types of crops, livestock and agro-forestry traditionally grown and consumed, as well as, emerging crops with potential for comparatively higher yield/productivity and related market trends;
- Possess the ability to assess the status and impact of past and present efforts to develop crops and livestock farming in Guyana having regard to economic growth, social development, governance, and environment
- Practical experience in the agriculture sector of Guyana and/or CARICOM Member States;
- Excellent command of Microsoft Office Suite and Outlook; and
- Excellent written and oral communication skills in English.

1.1.3 Specific Professional Experience

- In-depth knowledge of national agricultural policies and strategies and working experience in the agricultural sector of Guyana are essential;
- Familiarity and working knowledge of agricultural development and development institutions in the Region;
- Participation in regional policy dialogue and/or working groups dealing with agriculture policy issues;
- Knowledge of the appropriate production systems to be promoted, including, guidelines for selection of participants in crop and/or livestock development projects to be designed, appropriate training activities to be undertaken; the numbers and status of likely beneficiaries (farmers, consumers), and identification of inputs and input sources and likely costs at point of use;

- Knowledge of technology packages and preliminary outline designs for crop and livestock development activities to be proposed for the locations with regard to the local conditions and circumstances; and
- Ability to prepare technical reports, present agriculture project proposals and make recommendations.