

**STRENGTHENING TRADE POLICY EXECUTION IN THE
MINISTRY OF TRADE, TOURISM AND INDUSTRY**

**BUILDING EQUITY AND ECONOMIC PARTICIPATION
(BEEP) PROJECT**
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ABBREVIATIONS AND ACRONYMS

ACP	African, Caribbean and Pacific Group of States
ACS	Association of Caribbean States
BEEP	Guyana Building Equity and Economic Participation Project
BERMINE	Berbice Mining Corporation
BOG	Bank of Guyana
CAGI	Consultative Association of Guyanese Industry
CAP	Common Agricultural Policy of the EU
CARICOM	Caribbean Community
CARTIS	CARICOM Trade Information System
CBI	Caribbean Basin Initiative
CCCN	Customs Cooperation Council Nomenclature
CEDA	Caribbean Export Development Agency
CET	Common External Tariff
CGCED	Caribbean Group for Cooperation in Economic Development
CIDA	Canadian International Development Agency
COMFAR	Computer Model for Feasibility Analysis and Reporting
EU	European Union
ERP	Economic Recovery Program
FIC	Fiscal Incentives Committee
FTAA	Free Trade Area for the Americas
FTAA-IS	Free Trade Area for the Americas-Information System
GATT	General Agreement on Trade and Tariffs
GDP	Gross Domestic Product
GEC	Guyana Electricity Corporation
GEPC	Guyana Export Promotion Council
GFC	Guyana Forestry Commission
GMC	Guyana Marketing Corporation
GNBS	Guyana National Bureau of Standards
GOG	Government of Guyana
GO-INVEST	Guyana Office for Investment
GRDB	Guyana Rice Development Board
GSP	Generalized System of Preferences
GT&T	Guyana Telephone and Telegraph
GUYSUCO	Guyana Sugar Cane Company
HS	Harmonized Commodity Description and Coding System
IDA	International Development Agency
IDB	Inter American Development Bank
ILO	International Labor Organization
IMF	International Monetary Fund
IPED	Institute for Private Enterprise Development
ISIC	International Standard Industrial Classification
ITC	International Trade Centre (UNCTAD/GATT)
LINMINE	Linden Mining Enterprise

MFN	Most Favored Nation
MOF	Ministry of Finance
MTTI	Ministry of Trade, Tourism and Industry
NAFTA	North American Free Trade Agreement
NFPE	Non-Financial Public Enterprise
NGO	Non-Governmental Organization
NTDB	National Trade Data Bank
NTM	Non-Tariff Measures
OAS	Organization of American States
OCT	Overseas Countries and Territories
ODA	Overseas Development Agency
OECD	Organization for Economic Cooperation and Development
OECS	Organization of Eastern Caribbean States
OGML	Omai Gold Mines Limited
PIERS	Port Import Export Reporting Service
PPP	Purchasing Power Parity
PSC	Private Sector Commission
SBCI	Small Business Credit Initiative
SDN	Sustainable Development Network
SITC	Standard International Trade Classification
TCM	Trade Control Measure
TM	Tariff Measures
TOR	Terms of Reference
TRAINS	Trade Analysis and Information System
TRIMS	Trade Related Investment Measures
TRIPS	Trade Related Intellectual Property Rights
UG	University of Guyana
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program
UNSTAT	United Nations Statistical Division
USAID	United States Agency for International Development
USDOC	United States Department of Commerce
WB	The World Bank
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

EXECUTIVE SUMMARY

Background

Guyana's efforts since 1988 to reverse economic decline and promote economic growth have been successful to date, with GDP growth rates around 8 percent through 1994. Guyana's economy is strongly tied to foreign trade with exports (US\$ 478 million in 1995) equivalent to 75 percent of the GDP. The question is whether the country can continue to build on its present base.

Eighty percent of Guyanese exports consist of four commodities: sugar, gold, rice and bauxite. These commodities are subject to world wide trends in consumption and supply. In the case of sugar and rice, Guyana's exports benefit from non-reciprocal preference arrangements which shelter them from the exigencies of world market prices.

Guyana's efforts to increase exports beyond the current level and to diversify away from dependence on the four major commodities is hindered by the lack of a coherent trade policy. Development of just such a trade policy is one mandate of the Ministry of Trade, Tourism and Industry. To assist the Ministry in acquiring the capacity to develop trade policy, BEEP, utilizing the resources of the USAID, has contracted for an analysis of the present trade policy framework with recommendations for setting up a Trade Policy Unit (TPU). The proposed objectives of the TPU are: to provide technical support to the Minister of Trade in matters of foreign trade representation and negotiation; and to provide data and analytical support to strengthen the trade policy formulation process in Guyana.

GOG Functional Review

Trade policy formulation in Guyana should not involve merely the Ministry of Trade, but must involve virtually the full range of the GOG. This involvement should include, at a minimum, the agencies for Finance, Agriculture and Natural Resources and offer, as well, provisions for the private sector to express its interests. A main finding from the report is that Guyana has no trade policy at present. A further finding is that none of the Ministries has adequate access to economic or trade data that would provide necessary information for the policy formulation process. Customs data regarding imports and exports has been recently computerized and is now provided to the Bureau of Statistics, which publishes Guyana's import and export statistics with some time lag and with limited distribution. Little of this information is available either to the Ministry of Trade or to the private sector. There appears to be no established mechanism for acquisition of information from sources external to Guyana nor for the exchange of information between various Government units and agencies, including Guyanese foreign missions abroad. The GOG's trade and investment development efforts have been and will continue to be ineffectual owing to the lack of relevant data and the absence of a trade or investment policy framework.

The Trade Policy Climate

The report contains an outline of the climate in which Guyana's trade policy will be developed. Issues and developments which must be factored into the trade policy formulation process are identified as: 1) the foreign debt overhang; 2) the price, supply and foreign trade policies affecting products, with emphasis on those few commodities which make up the bulk of Guyana's trade; and, 3) the changing structure of world trading arrangements as the GATT evolves into the WTO and markets "globalize" in an environment of developing trade blocs. A major point from the report is that Guyana can not expect conditions to continue as they are nor approach upcoming developments on an *ad hoc* basis, but it must have the capacity to analyze current facts and project future trends to provide a rational basis for policy decision making.

Conditions Required for a Trade Policy Unit

A conclusion from the report is that Guyana does not have the capacity in place to formulate an effective trade policy. Also, that Guyana's current level of foreign trade development is approaching its natural limit and that without an effective trade policy, the country risks a decline in its export totals if it fails to adjust to changing world trade circumstances. A unit designed to provide the GOG with the necessary tools for policy formulation is proposed. This Trade Policy Unit (TPU) is not viable, however, in the present Guyana public sector environment.

The consultants conclude that implementation of their recommendations is not advisable unless two conditions are met. One, there must be a political decision to develop a trade policy unit with the necessary leadership to assure cooperation between agencies of the GOG. And, two, there must be qualified staff selected and in place before implementation and the necessary training become feasible.

Proposed Trade Policy Unit

The report proposes the creation of a Trade Policy Unit under the guidance of a Director reporting to the Permanent Secretary of Trade, Tourism and Industry. The Director is expected to serve as the Ministry's top trade advisor and to be well versed in international trade and related legal matters. The Director will oversee and direct the data acquisition and analysis functions of the TPU.

The TPU technical staff will comprise trade policy analysts, domestic and international, an economic data analyst and specialists for information and computer systems. The Unit will identify, collect, classify and store trade-related data from internal Guyanese and external sources. Internal data will come primarily from the Bureau of Statistics with inputs from other agencies as appropriate. External data will derive from subscription to a series of data bases such as the CARICOM Trade Information System,

the U.S. National Trade Data Bank, the UNCTAD Trade Analysis and Information System and the FTAA-Information System sponsored by the IDB and UNCTAD.

The report contains an outline of the responsibilities for each position proposed and lists minimum qualifications, which include familiarity with computers and a modicum of educational background in statistics, business and economics.

The TPU's output will derive from its ability to query its databases to produce information in response to specific needs. Those needs include analyses of tariff changes and exemptions, world price shifts in a given commodity and trade data of interest to private sector groups or other client institutions. Data products and dissemination mechanisms recommended include a Bulletin Board System (BBS) available on a 24-hour basis permitting computer downloading of reports, tables, etc., an automated FAX system, data available on diskette for organizations involved in investment and export development, fact sheets and newsletters, seminars and workshops on trade issues and information provided on a regular basis to the media. Training and software would also be provided to permit computer modeling and "what if" scenario building with respect to the economic impact of trade policy change and economic projections.

The Recommended Computer Environment

The report contains recommendations that the TPU be equipped with several computers linked within the Unit to form a peer to peer network. This configuration avoids the need for a sophisticated and managed server unit and complex network software but does allow data access and resource sharing between the workstations and makes the databases available to all members of the Unit on a selective basis. The proposed system will work within the Microsoft Windows environment and use Microsoft Office as its principal software suite. The network can be easily upgraded to handle internet access and more complex operating systems when and if such capacity proves useful.

The TPU's computer system will have two system components, a Trade Policy Analysis System and a Guyana Trade Information System. The system will also include desktop publishing capability. The report contains details on the hardware, software and database access requirements which are estimated to cost between US\$ 45,000 and US\$ 69,000 depending on the number of workstations acquired and their configuration.

The report also contains a detailed discussion concerning economic modeling software and the array of available international data bases.

Implementation, Training and Work Program.

Upon acceptance by the GOG, an implementation program to install the computers, relevant software and linkages between the units is specified. Recommendations are made for training with emphasis on the need to develop computer

skills up to and including database management, desk top publishing, graphics, and relatively simple economic modeling.

A proposed work plan for the Unit for the first two years is suggested, one that, if followed, should take the Trade Policy Unit through its start up, the design and development of its information systems and into the collection, analysis and dissemination of data to the private and public sectors of Guyana. This capacity will permit the GOG to formulate trade policy and support foreign trade and investment expansion in a rational, informed, manner.

I. INTRODUCTION

A. Background

Since 1988 Guyana has sought to reverse previous years of economic decline through sustained economic growth engendered through market-oriented policies and an open economy. The beginning has been promising, as measures taken in support of the economic Recovery Program (ERP) have led to growth rates in real GDP in the range of 8 percent for the period 1991-1994 and 5.1 percent in 1995. The 1995 decline in growth was mainly attributable to the cyanide spill at OMGL and its temporary closure.

Guyana's economic growth, and indeed its economy, is highly dependent on foreign trade. Total exports in 1995 exceeded US\$ 478 million, an increase of 89 percent over 1991 and equivalent to about 75 percent of the national GDP. In other words, Guyana's annual exports exceed US\$ 600 per inhabitant in an economy in which annual per capita income is reportedly just over US\$ 800.

Guyana's exports, so critical to its economic health, are concentrated in a few, select, commodities. In 1995 eighty percent of Guyanese exports by value consisted of four commodities: sugar, rice, bauxite and gold. Apart from the notorious volatility of world commodity prices and related uncertainties, Guyanese products now enter world markets in which the rules of the game have changed and are continuing to change. Technological, population and income changes lead to shifts in the size, location and composition of world markets for specific products. Economic "globalization" and a trend toward regional trading blocs alter the terms of trade, often in ways not foreseen.

To sustain economic growth and to provide a better life for all its citizens, it is imperative that the Government of Guyana (GOG) respond effectively to the challenges confronting the country within the world economy and that its policies continue to encourage savings, investment and economic expansion.

The Building Equity and Economic Participation (BEEP) Project was designed to support the GOG in these tasks. The purpose of the Project is the strengthening of Guyana's business environment in order to bring about economic growth with equity. The business environment is defined as the macroeconomic policies, and the legal, regulatory, judicial and institutional framework that govern all public and private sector investment activities. Among the performance targets for the Project is increasing the Government's capacity to implement economic, financial and other business related policy and regulatory reforms to produce greater economic growth coupled with equity.

Guyana's current development thrust is market-oriented and based on policies of privatization, trade liberalization and export-led growth. In this context the Ministry of Trade, Tourism and Industry has been given a mandate to develop policies that will facilitate both the expansion of trade liberalization and the growth in trade and trade-

related investment. To fulfill that mandate, there is an urgent requirement to strengthen the skills and capacities of the Ministry, especially in the areas of policy analysis, strategic planning, trade research, market intelligence and trade negotiation.

B. Terms of Reference

The tasks set forth for this consultancy are to analyze the existing institutional and trade policy frameworks and to design an organizational unit to support the Minister of Trade in carrying out his responsibility to enhance Guyana's foreign trade. The objectives of the recommended organizational unit to be established within the Ministry of Trade, Tourism and Industry are twofold: to provide technical support to the Minister in the discharge of his responsibilities for foreign trade representation and negotiation; and, to provide informational and analytical support to strengthen the trade policy formulation process in Guyana.

II. REVIEW OF THE TRADE POLICY FORMULATION PROCESS IN GUYANA

A. GOG Functional Review

The overriding impression resulting from the review of the trade policy process in Guyana is that there is no formal, organized, mechanism in place. Necessary decisions in support of representation and negotiations related to trade matters are reached *ad hoc*. Fair comment would be that Guyana has not as yet developed a coherent, formal and agreed trade policy nor does it appear to have the established institutional framework and capacity in place with which to develop such a policy.

The domestic responsibility of the Ministry of Trade, Tourism and Industry is concentrated on industry, i.e. manufacturing. Its role in foreign trade is limited owing to the fact that the export from manufacturers forms a very small proportion of Guyana's exports. However, the import of consumer and capital goods on which both Guyanese consumers and industry depend is of far broader consequence. The Ministry did play an important historic role in commerce as the enforcer of trade restrictions imposed on "prohibited" and "restricted" commodities. With trade liberalization and the virtual disappearance of these restrictions, the Ministry's involvement in routine trade matters has been sharply reduced. The Ministry retains a role as the monitor of trade flows and as a resource to Guyanese industry and commerce. The Minister of Trade is also a member of the CARICOM Council of Ministers and is expected to attend meetings at which trade policy is the major agenda item. The Ministry has also attempted to support private sector efforts directed toward export expansion and investment promotion through the sponsorship of the Guyana Office for Investment (GO-INVEST) and the Guyana Export Promotion Council (GEPC). It also includes the Guyana National Bureau of Standards, which is undertaking the establishment of product standards within Guyana for purposes of consumer protection and to assist in meeting international standards for export products.

In an economy dominated by foreign trade, the responsibilities of the Ministry of Finance (MOF) with respect to public revenues, public debt, monetary issues and economic growth are intimately connected to trade developments. Trade policy directly impacts the factors of most interest to the MOF. Organizationally, the MOF has administrative responsibility for the customs service and inland revenue as well as the oversight and regulation of the banking, insurance and ancillary financial services sector. Its responsibilities for macroeconomic policy formation and national economic planning obviously cannot be undertaken without consideration of trade flows and prospects. Presently, the Ministry of Finance serves as the chief point of contact with international lending organizations and thus bears the principal burden of preparing policy and data for internal and external use by the GOG. It is also the agency responsible for the operation of the National Bureau of Statistics, which is the only source within Guyana for data compilation and the conduct of information surveys.

Given the key role occupied by agricultural commodities in Guyana's foreign trade, the Ministry of Agriculture should be fully involved in the formulation and implementation of trade policy. In practice much of this activity appears to be undertaken by the parastatal national sugar company (GUYSUCO), the Guyana Rice Development Board, the New Guyana Marketing Corporation (GMC), which functions essentially as a department of the Ministry, and the Ministry's Fisheries Department. The GMC, while small, is actively engaged in the promotion of non-traditional agricultural exports and generates and disseminates pricing and supply information on a wide variety of domestic fruit and vegetable crops. It has not yet developed the capacity to capture international data consistently, but its activities clearly should be part of the overall trade policy formulation and analysis process. GUYSUCO and the Rice Development Board, as representatives of major economic sectors, have developed their own sources of international market intelligence and have access to the councils of government in matters affecting their interests.

The Guyana Natural Resources Agency has responsibility within the GOG for forestry, minerals and energy matters. The Agency now plays more of a policy and planning role with operational matters left to the Forestry Commission, the Guyana Geology and Mines Commission and the Gold Board. Given the importance of minerals and forestry exploitation to Guyana's economy and trade, the Agency's planning activities should be coordinated within the trade policy formulation process.

In many instances, the Ministry of Foreign Affairs is charged with the responsibility of representing Guyana at international conferences, multilateral or bilateral negotiations in which trade issues are significant or even paramount. The Ministry's Economic Affairs Department serves as the focus for technical support to the Minister in these areas, but has limited capacity to perform analyses of the prospective consequences to Guyana of proposed international agreements or to prepare effective position or briefing papers. Support from other ministries is solicited in writing but timeliness and quality of the technical support supplied is often less than what could be desired. In addition, the Ministry of Foreign Affairs administers the Government's overseas presence through the staffing and administration of Embassies and Consulates in selected countries. The utility of the overseas diplomatic and consular service either in the gathering of information or the promotion of Guyanese economic interests is very limited. In addition to problems of direction and support, there appears to be little or no interaction with other areas of government and very limited support from the home ministry. As the window for Guyana to the external world, the Ministry of Foreign Affairs and its overseas representation should be integrated into the trade policy process.

B. Private Sector

The role played by Guyana's private sector in the formulation and implementation of trade and economic policy is growing but still limited. The private sector underwent more than two decades of suppression in which the state took control of more than 80 percent of the economy and discouraged free expression and economic openness. The

process has been reversed, but, in the interim, a large component of the business and professional sectors of the population emigrated, leaving behind a serious vacuum of experienced and skilled human resources.

With the exception of a few major enterprises, business and agricultural producers who survived this period did so by remaining small and avoiding or evading government regulations and influence, especially with reference to trade and foreign exchange restrictions. The legacy of this period is one in which the general population still tends to look to government for the solution of all social and economic problems and the private business community continues to harbor suspicion as to the good will of government towards its interests. Other results from that period included the development of an underground economy through which economic transactions took place without record. This has resulted in a situation where the official national income and product accounts might understate the actual level of economic activity in Guyana. It also follows that the institutional framework within the private sector has had to be rebuilt from a very low base. Another consequence of this history is that employees of the public sector have generally been isolated from private business throughout their professional careers, leaving them with little understanding of business concerns or requirements.

In an effort to focus the resources and influence of the private sector, the Private Sector Commission was established to serve as an “umbrella” organization for the sector. Its membership includes the Chambers of Commerce of Georgetown and Berbice, the Guyana Manufacturers Association (GMA), the Consultative Association of Guyanese Industry (CAGI), the Tourism Association of Guyana (TAG) and the Forest Products Association. The individual associations lack resources and trained staff; but, working in concert through the Private Sector Commission, they are beginning to develop a dialogue with the public sector through which the private sector’s interest and views are presented publicly and forcefully. Government’s receptivity to this process and its ability to respond effectively is still deficient but the process appears to be improving.

None of the private sector associations appear to have formal access to economic or trade information of potential use to its membership. With funding from the European Commission, the Private Sector Commission has undertaken to develop a Private Sector Centre which will provide trade and business related information and business services to the community on a fee basis. This effort is just in the start up phase and its prospective capacity and success can not be assessed at this time. What is clear, is that, to date, there has been no formal mechanism for the consistent sharing of information between the Government and the private sector.

III. THE TRADE POLICY CLIMATE

Useful to the review of trade policy formation is a discussion of the general climate in which trade policy is developed. This may be approached from several aspects, which include Guyana's foreign debt situation, its export development prospects, and structural and geopolitical considerations.

A. Foreign Debt

Guyana's current foreign debt measures approximately US\$ 2,100 million, a figure over three times the size of the annual gross domestic product in current prices. Debt service funds flow exceeds US\$ 100 million a year and may increase in the near term in compliance with terms negotiated with Guyana's array of foreign creditors. The implications for Guyanese foreign trade policy is that to cover debt service requirements and still generate a rate of savings sufficient to finance economic growth and improved public services will require significant continuing growth in export earnings combined with continued moderate increases in imports and access to international financing on concessionary terms. The debt situation thus forms a framework within which all trade policy decisions must fit.

B. Prospects for Export Development

As mentioned above, Guyana's merchandise exports are heavily weighted towards bulk commodities, both mineral and biological. As a result trade policy development must consider trends in world commodity markets, structural arrangements, such as preferential access, quotas and other non-tariff barriers to trade in specific commodities, and the impact of Guyana's economic and regulatory climate on commodity production costs through incentives and disincentives.

Sugar

The cultivation and production of sugar is probably the single largest economic activity in Guyana; in past years sugar has amounted to as much as 30 to 40 percent of GDP. Sugar exports represented about one-fourth of the value of Guyanese exports in 1995 (US\$ 126 million of a total of \$479 million). In the world market, a large proportion of the sugar trade conforms to various preference and protection schemes, the larger of which involve the European Community and the United States. The residual or non-preferential, spot market, trade thus tends to be thin and volatile. Nevertheless, projections of future trends in overall consumption and production are valuable reference points in the development of a rational sugar trade policy.

Much of Guyana's surge in exports noted in 1991 and subsequent years resulted from Guyana's ability to fulfill its preference quotas, especially that for the European Community which grants Guyana a quota of 163,000 metric tons (plus another 28,000 MT for Portugal) at prices equivalent to the EC support price for domestically produced

beet sugar. Currently this price runs to nearly double the “world” market price and is very profitable to Guyana. This preferential access was created through the EC’s “Sugar Protocol” which was intended to assist the economies of those African, Caribbean and Pacific (ACP) countries capable of producing and shipping sugar. The “Sugar Protocol” is of indefinite duration. It would be unwise, however, to base trade policy on the premise that this situation is permanent. Aside from possible movement within the EC to amend or terminate the Protocol, considerable pressures exist both for internal domestic fiscal reasons and from the provisions of the newly established World Trade Organization (WTO) to reduce agricultural support prices. Even if the Sugar Protocol continues in force, substantial reduction or elimination of sugar beet support prices within the community would reduce the “premium” income accruing to Guyana. Trade policy must factor in this prospect as well as the erosion in sugar prices in real terms should nominal prices fail to match inflation.

The United States is another important preferential market for Guyanese sugar. In the case of Guyana, however, its share of the U.S. preferential market is quite small, some 11,000 MT in 1996. Prices, while above world market prices, range around 75 percent of the current EC preferential price. The “Sugar Program” in the U.S. has come under increasing political attack and one should not assume that this program will continue in its present form much beyond the next two to three years. The abolition of the U.S. sugar program presumably would lead to U.S. imports of sugar at “world” market prices, eliminating assigned access quotas including Guyana’s, and creating a market open to the lowest cost supplier. Application of the current U.S. import tariff to total imports of sugar, rather than applying a prohibitive surcharge to quantities in excess of the “quota,” would imply downward pressures on U.S. domestic prices for sugar and equivalent sweeteners which could result in reduced domestic production of both cane and beet sugar and a corresponding increase in demand for sugar imports. Guyanese trade policy will need to include these developments as it projects likely export markets for its sugar. Also, consideration is needed of yet another unknown, the state of relations between the U.S. and Cuba over time which, if improved, could lead to direct access to the U.S. market for Cuban sugar.

From the above, it is clear that Guyana requires a cohesive trade policy with respect to sugar. Domestically this is rather complex. Sugar production and sales were nationalized and while the Guyana Sugar Corporation’s (GUYSUCO) management responsibilities have been contracted out to a multinational firm, the corporation’s assets and much of the land under cultivation remain state property. Production efficiencies and costs vary between the sugar estates, with those in Berbice considered better than those in Demerara. Average production costs, however, are widely considered to be above the present world market price. If this is true, then production and export of sugar in quantities above those required to fill domestic needs and the preferential market quotas will prove uneconomic and serve as a ceiling beyond which sugar may not contribute to Guyana’s export growth. The solution would appear to be to lower production costs. This undoubtedly will require capital investment and may involve rationalization in labor utilization, i.e. reductions in labor force size and productivity improvements. Regarding

capital expenditures, the eight extant sugar mills have not been maintained in conditions suitable for efficient production, thus requiring decisions concerning capital improvements or shut down. Locating a source of needed capital is an urgent policy question. Privatization of GUYSUICO is one option. Another important policy question involves the government's levy applied against sugar exports to the EC which amounts to a major portion of the differential between world and EC support prices. At issue is an important source of revenue for the Government and the need for substantial capital investment to maintain the viability of Guyana's sugar industry.

Rice

Rice has made a major contribution to Guyana's growth in exports. Rice exports have grown from US\$ 33 million in 1993 to \$77 million (16 percent of total exports) in 1995. Much of this growth has resulted from the rehabilitation of production facilities, sea defenses and drainage systems for example, and liberalized access to imported inputs, fertilizer being among the most important.

Again, preferential access has been an important element. Through the Lomé Convention, access to market at a substantial reduction from the common external tariff (CET) is allowed to ACP countries. Guyana's quota is 120,000 MT of milled rice and an additional 20,000 MT of broken rice. Recently, however, a substantial portion of Guyanese rice has not been exported directly to the European Community, but rather to the Netherlands Antilles. Further milling of the rice there allows its classification as an Overseas Countries and Territories (OCT) product entitled to duty free entry into the EC. Whether this "end around" route for Guyanese rice will be allowed to continue is in question. Some consideration should be given to how to respond should this mechanism be shut down or reduced.

Rice trade policy issues, as in the case of sugar, should take into account projections of world rice supply and demand. Most rice produced in the world is consumed in the country of production with only about 5 percent of the volume entering into world trade. Accordingly, the world market price tends to be volatile and much affected by adverse weather, flooding or other untoward events in production areas. For Guyana, which has the capacity to increase its production to levels far above its domestic food requirements and current export levels, accurate projections of likely world price and volume levels are extremely important.

The preferential market access Guyana currently enjoys with respect to the European Community is based on the terms of the Lomé IV Agreement signed in 1989 and implemented in 1991. In November 1995, the EC agreed to maintain preferential access and its assistance programs directed toward the ACP countries only through the year 2000. Whether a system of non-reciprocal preferential access to the EC will continue beyond that date or, if so, and in what form, is unknown. There is considerable published comment in the international media to the effect that the era of non-reciprocal trade preference agreements is coming to an end. There has been speculation that the EC,

if it continues with such an arrangement, will abandon the ACP country format, applying it only to a grouping of least developed countries, and that the new arrangement would not include many of the countries in CARICOM. For trade policy purposes, and especially for rice, Guyana should adopt a defensive posture, factoring into its policy the possibility of a trading system in which there is no “preferential” access for Guyanese rice exports. An additional element to monitor is the impact on rice markets if, as a result of changes in U.S. domestic farm policy, there is a reduction in the supply of rice supplied to developing country markets through food assistance programs, e.g. P.L. 480.

Trade policy considerations affecting Guyana’s rice exports will, as for sugar, involve issues affecting costs of production which must be lowered if export growth is to be sustained. Tax and/or tariffs which affect the costs of imported inputs, e.g. fertilizer, fuel oil, and questions of land tenure, business taxes, investment incentives and infrastructure support all enter into these considerations.

Gold

Gold production in Guyana has existed for decades, but principally in the form of small scale, low technology “panning” operations in Guyana’s rivers. This has changed since the development of modern, capital intensive gold mining operation such as that at Omai (OGML). Gold exports for 1996 will probably rank second only to sugar in terms of value and exceed US\$ 100 million. Gold is not usually subject to tariff or preferential trading arrangements and successful development hinges upon balancing production costs against world price trends. In recent years the price of gold has tended to fluctuate between US\$ 350 and US\$ 400 an ounce. For many mining operations, exhaustion of readily exploitable ores and environmental considerations have led to production costs in excess of world prices. OGML appears to have a relatively good cost structure but comments from knowledgeable sources indicate that at present rates of return it will be several years before the capital investment costs have been recovered. For Guyana, there may well be potential to establish other similar operations, but, attracting the requisite investment capital requires policies which are attractive and competitive to those in other mineral producing countries. Successful mining has become a major user of capital, and investments will not be made without assurances of satisfactory rates of return on that capital.

Bauxite

Bauxite has been among Guyana’s leading exports through the years as a result of the availability of unusually pure ore bodies permitting the production of calcined refractory grade bauxite. Production takes place at three locations, two operated by state-owned enterprises, Linden Mining Company (LINMINE) and Berbice Mining Company (BERMINE), respectively, and a third operation which is a joint venture between the GOG and a U.S. corporation, is also located in the Berbice region. In 1995 bauxite exports totaled US\$ 83 million and, while slightly higher than in 1994, were 10 percent lower than in 1992 and at about half the level of the peak year, 1980. The relative decline

in bauxite's share of Guyanese exports continues with the 1995 figure less than 17 percent.

Growth in world markets for refractory grade bauxite is closely allied to trends and growth rates in the steel industry, a market in which technological trends away from the use of refractory grade bauxite outweigh overall industry growth. Guyana's ability to compete in world markets has been sharply undercut through decapitalization and the deterioration of production facilities, the failure to rationalize the labor force or reduce the enterprise's indirect social costs and price increases of imported inputs, principally petroleum products. The net result is limited physical capacity to produce and a cost structure of, perhaps, double the current world market price. Despite the quality of its processed bauxite, Guyana is not competitive in the world market at present.

The issue of whether bauxite offers a vehicle for export development is then a domestic economic policy matter involving privatization, unbundling the indirect social costs and accepting reductions in employment levels. A trade policy issue is the projection of future trends in world bauxite market prices. Any investment decision, whether by public or private interests, to rehabilitate bauxite production must balance the expected return, that is, the projected effective export price, against the cost of production. If, as suggested, the costs are well above the selling price, then a further calculation is required as to whether further investment will lower production costs, the amount of investment required, and the new rate of return based on the expected price and modified cost of production. Only if these calculations lead to a reasonable expectation of an adequate return on investment will such investment be likely to happen. Trade policy formulation should consider the impact on Guyana if there is no further substantial investment in bauxite production and if exports continue to decline.

Other Products

A major objective for Guyana and thus a major task for trade policy development is export diversification. The four commodities mentioned above generate the overwhelming preponderance of Guyana's export earnings, but there are other exports of some importance, including diamonds, forest products, textiles and shrimp. Additionally, Guyana offers potential in other, non-traditional, agricultural products.

Exploitation of timber resources, especially hard woods like *greenheart*, has been going on for decades. Additional processing of harvested timber, as represented by the Barama plywood production project, was expected to add value to Guyana's exports and to be the precursor for an expanded level of employment and export revenues. There are indications, however, that the Barama operation has not had the timber yield from its concession area that it anticipated nor that it has yet achieved financial break-even in its operations. The lower than expected yields from Guyanese forests have been attributed to the generally poor quality of the soil and species distribution. The yield in cubic meter per hectare is reportedly only about one-third of that experienced in Malaysia, for example. Adding to production costs are infrastructure inadequacies and problems of

access and labor productivity. Trade policy projections of future contributions to the economy from the forestry sector should be based on realistic analyses of exploitable yield by sector and species and production costs using these yield figures and specific Guyanese factors such as the state of infrastructure development. These analyses combined with information on world market prices would allow the construction of profitability and return on investment projections with which to inform those involved in the processes of licensing and concession granting.

Diamond production traditionally has been undertaken on the same, low technology, level as gold. Expanded production may well require significant capital investment and thus give rise to policy issues with respect to mining concessions, ownership and public sector participation in the revenue stream.

Expansion of shrimp production would appear initially to be a question of capital investment in transport and processing facilities, but there are also questions of over exploitation of existing wild stock and the feasibility of introducing commercial shrimp cultivation. These same issues apply to fin fish as well.

With respect to other, non-traditional agricultural exports, the “new” Guyana Marketing Corporation (GMC) has made a good start at developing domestic market intelligence and promotion of fruit and vegetable production. The GMC has not yet been able to acquire international marketing information on a consistent basis. Trade policy issues involving prospective non-traditional agricultural exports will involve not only identification and analysis of foreign markets, but an understanding and analysis of measures impacting trade as a result of quality requirements, phytosanitary standards and the protectionist measures adopted by many countries to protect their domestic producers of such products as edible oils, citrus, other fruits and basic grains.

Guyana’s production for export of garments is now largely confined to the sewing up of cut fabric brought in from the United States and re-exported. The favorable tariff treatment accorded this process - duties only on the value added abroad - may well continue, but the quota restrictions which have driven the diversification of source countries is expected to end as part of the new WTO arrangements which calls for the elimination of the Multi-Fiber Agreement within ten years. Trade policy issues will be largely those of monitoring the disappearance of specific quantitative quotas and pushing for non-discriminatory tariff treatment of Guyanese exports vis-à-vis those from within NAFTA and other trade blocs.

C. The Structural Framework for World Trade

Guyana is a member of the General Agreement on Tariffs and Trade (GATT) and is thus involved in the process of meeting the requirements imposed by the Uruguay Round as established in the new World Trade Organization (WTO). The impact of these requirements on Guyana’s tariff structure is virtually nil, since the rates at which Guyana is bound are higher than those of the CARICOM CET to which Guyana adheres. There

are technical considerations which Guyana must consider and the identification, definition, analysis and recommended response to these are clearly a matter of trade policy formulation. Issues of concern include trade complaints and dispute resolution mechanisms which in turn involve questions of subsidies and countervailing duty actions, dumping and anti-dumping measures, imposition of appropriate phytosanitary standards, definition and control of country of origin requirements, and valuation and classification of goods by customs authorities.

In addition there are the provisions governing Trade-Related Intellectual Property Rights (TRIPS) and Trade-Related Investment Measures (TRIMS) for which Guyana does not now have in place adequate provisions in terms of legislation, regulation or implementation.

Permissible under GATT rules, although not actively encouraged, a series of regional trading blocs have developed over the years, the most important single one to date being the European Community. But of considerable consequence at present, especially in the Western Hemisphere, is the North American Free Trade Agreement (NAFTA) comprising the United States, Canada and Mexico.

In the 1960's attempts were made to form regional trading blocs within the hemisphere including the Central American Common Market, the Andean Pact and the Caribbean Community. Efforts are under way to revitalize the Central American group to form a Central American Community. The Common Market of the South (MERCOSUR) linking Brazil, Argentina, Paraguay and Uruguay is also well underway. The United States has led the way in proposing the formation of a Free Trade Area for the Americas (FTAA) to come into effect in 2005 in pursuit of which a series of "framework" agreements have been negotiated bilaterally.

Based on its history as an English-speaking colony, Guyana has identified itself as a part of the Caribbean rather than South America. It is a member of CARICOM and has accepted the application of the CARICOM common external tariff. Continuing membership in CARICOM and participation in the unfinished negotiations leading to a "single market" with free movement of people and goods requires preparation on the part of the GOG supported by technical analysis of the agenda items under discussion and their likely impact on Guyana if adopted. Guyana's trading patterns have not traditionally been within the West Indies but, rather, directed toward the United Kingdom, Canada and the United States. Analyses have not been performed of the market potential offered within CARICOM as compared to other possible alignments. It is also a moving target as new arrangements come into being such as CARIFORUM, which adds Haiti and the Dominican Republic, and the Association of Caribbean States (ACS) which combines all the countries south of the U.S. border and north of Brazil. The effects of these potential alliances in terms of trade flows and economic impact on Guyana should be analyzed and assessed before commitments on implementation are made.

Other issues of continuing and immediate concern are the relations between the developed industrial nations and the developing countries, the so-called North-South dialogue. Up to the present, the developed countries such as the United States and the European Community have established non-reciprocal trade regimes to provide market access for countries like Guyana. The U.S. has its Generalized System of Preferences (GSP) which permits duty-free entry to a wide range of products with the major exception of textiles and apparel. The EC has entered into a series of Lomé Conventions with special provisions for former colonies, the African, Caribbean and Pacific Countries. The U.S. Caribbean Economic Recovery Act which implemented the Caribbean Basin Initiative (CBI) essentially duplicated the terms of GSP for most of the Caribbean and Central American countries, including Guyana.

As envisaged in the WTO, non-reciprocal trade arrangements will no longer exist indiscriminately. One time LDC's like Brazil, Mexico, Korea, Taiwan and others are far too advanced to justify non-reciprocity in trade relations. In the future, special preferences will most probably be available only to the least developed countries and may well not include Guyana given its current economic status.

Responding to the sheer burden of bilateral and multilateral trade conferences, negotiations and related meetings places a heavy burden on the institutional resources of smaller countries like Guyana. One approach to this problem is to derogate negotiating authority to a regional body, like CARICOM. Let the CARICOM Secretariat and a selected commission of national trade ministers negotiate with the European Community, Venezuela or the U.S. regarding trade issues. Even under this approach, however, there remains a need for Guyana to be appraised of the issues and possible impacts on its economy.

In summary, given the overriding importance of trade flows to Guyana's economy and to its future prospects and the impact of trade on all elements of the society, it is important that the Government have the capacity to formulate an effective trade policy. This capacity, which is the subject of this consultancy, is one that permits the collection of adequate trade and economic data and the analysis of trade flows, cost to benefit ratios of selected policy options or changes in world market conditions and the likely impact of the incentives, or lack thereof, offered by the current Guyanese business environment. It would be helpful to Government policy makers to have quantitative analyses of the perverse incentives for small and medium enterprises that, for example, result from the lack of reliable electric power, inadequate transport facilities and inappropriate tax and import tariff structures. The private sector must also share in this process and be kept fully informed of where and how Government intends to move.

IV. REVIEW OF EXISTING TRADE INFORMATION FLOWS BETWEEN THE MINISTRY OF TRADE, TOURISM AND INDUSTRY AND OTHER GOG AGENCIES

As near as could be ascertained, there is virtually no institutionalized mechanism in place to permit sharing of information between Ministries in Guyana. Some work has been done by the Ministry of Finance (MOF), Bureau of Statistics, in support of the Ministry of Trade, Tourism and Industry (MTTI) Tourism Division which resulted in a published tourism survey of Guyana. But there appears to be no regular means of either collecting or providing MTTI with on-going information on visitor arrivals, their expenditures, or other pertinent data. Customs and financial data is collected to a limited degree by the Bank of Guyana (BOG), but the BOG's published data primarily describes Guyanese economic and financial conditions. Customs data, now computerized, is still delivered to the Bureau of Statistics but up to the present has not regularly been made available to MTTI or to any private sector entity. A current concern is a hold that has been placed on customs data in order to analyze alleged irregularities.

Analysis of economic and trade data is performed by the Bank of Guyana and, in the future, it is expected that the Ministry of Finance's Macroeconomic Policy Unit will further develop this capability. Stated bluntly, free exchange of information between Ministries, within Ministries and with the public is not standard practice in Guyana.

V. CONDTONS REQUIRED FOR A TRADE POLICY UNIT

The preceding review of the trade policy formulation process, the trade policy climate and existing trade information flows within the GOG, leads to two conclusions. One, the Government of Guyana does not have the capacity in place to formulate an effective trade policy, whether in the Ministry of Trade, Tourism and Industry or any other agency. And, two, Guyana's current level of foreign trade development is rapidly approaching its natural limit absent effective policy measures to promote investment, lower costs of production and diversify its exports in terms of products and markets.

The world markets for Guyana's principal commodities and the world trading structure are dynamic, not static. Drifting along with the current, *ad hoc*, approach to world economic, technological and organizational changes will prove costly to Guyana. At a minimum, the country risks having its export levels and the economic growth which foreign trade drives plateauing at the present level, with little or no future growth. In actuality, given the dynamics of economic "globalization" and changing trade regimes, the more likely outlook is for a decline in Guyanese export totals owing to adverse price trends for its principal commodities if nothing else.

The Sections below contain recommendations and specify the requirements for a viable trade policy unit designed to provide the GOG with the necessary resources and tools to analyze its current situation and to plan effectively for the future, taking into full account Guyana's national interests in the evolving "global" market place.

The proposed trade policy unit is not viable, however, in the present public sector environment. In the judgment of the consultants, implementation of the proposed trade policy recommendations is not advisable unless at least two conditions are met.

One, there must be a conscious political decision to develop a trade policy unit and thereby provide the leadership necessary to bring the unit into being and to assure the degree of coordination and cooperation within the agencies of the GOG and with Guyana's private sector in the sharing and use of information without which the policy unit can not function.

Two, there must be qualified staff selected and in place before implementation and the necessary training become feasible. These qualifications include computer literacy and training in economic and statistical analysis. For leadership positions within the unit, experience and knowledge of international trade matters is also required. Training and experience can enhance the human resource skills in use, but there has to be an adequate base from which to start.

Assuming these two conditions are met, the proposed trade policy unit as described below is practical, doable and much needed.

VI. RECOMMENDED STRUCTURE AND RESPONSIBILITIES FOR THE NEW TRADE POLICY UNIT WITHIN THE MINISTRY OF TRADE, TOURISM AND INDUSTRY

The consultants propose that a new Trade Policy Unit (TPU) be established within the Ministry of Trade, Tourism and Industry. The Unit will have two broad functions: technical support to the Minister of Trade (and by extension to other concerned Ministries) in external trade matters such as negotiations, trade complaints or conferences; and, information analysis in support of trade policy formulation and trade and investment development. The net increment in Ministry authorized staffing will be modest inasmuch as the Unit's proposed responsibilities include a number of functions now performed elsewhere in the Ministry.

A. Organization

The TPU will be supervised by its Director, who will report directly to the Permanent Secretary of MTTI. In addition to management oversight and policy direction for the Unit, the Director will also serve as the principal advisor for the Ministry in matters of international law. The trade and international law responsibilities now handled by the Legal Advisor will be transferred into the TPU.

The Trade Policy Unit staff will comprise five specialists whose general responsibilities would be as follows:

1. Trade Policy Analyst - International

This analyst will be responsible for the collection of international trade related data, managing subscriptions, electronic database access, and other activities directed at providing, on a continuing basis, foreign market intelligence, economic data, results of trade negotiations and related matters. This analyst will also monitor trends in world commodity market supplies and prices for those commodities for which information is needed in either the Guyanese private or public sectors.

2. Trade Policy Analyst - Domestic

This analyst will be responsible for the collection of domestic Guyana trade and economic data acting as liaison for the Ministry of Trade, Tourism and Industry with other agencies of the GOG. A close relationship with the Bureau of Statistics, the Guyana Marketing Corporation, the Research Department of the Bank of Guyana and the macroeconomic policy and planning unit of the Ministry of Finance will be necessary.

3. Trade Information Specialist

This specialist will be responsible for the compilation and editing of foreign and domestic trade-related information and making it available to the Guyana private sector in appropriate form, whether by computer diskette, written documents or electronic form via dial-up computer access. Prospective users of this information include the Private Sector Centre, Guyanese diplomatic missions overseas, banking and financial institutions, trade and business associations and companies, both domestic and foreign, interested in trade or investment.

The Information Specialist will act as the focal point for the Trade Policy Unit as it undertakes to perform the role of serving as the data and information resource for GO-INVEST and other units of the GOG. Guyana's efforts for investment promotion and export expansion have been severely handicapped by the inability to develop adequate information systems within GO-INVEST, the Guyana Export Promotion Council and the New Guyana Marketing Corporation. As brought out more completely below, the consultants believe that those elements of these organizations assigned to the development and management of information flows can be subsumed into the Trade Policy Unit thus generating benefits in terms of cost efficiency and effort coordination.

The Information Specialist will also hold responsibility for dissemination to the public of trade and investment-related information about Guyana as appropriate. The Trade Information Specialist will have two technical officer assistants, one to handle information requirements with the private sector and the other to act as liaison in informational matters with other agencies of the GOG.

4. Economic Data Analyst

This analyst will be responsible for the overall management and supervision of the TPU's databases. The analyst will assure that the information collected by the domestic and international trade analysts is properly processed and situated in data files and that these files are maintained properly and are fully usable in terms of data classification and dissemination. The analyst will also be knowledgeable and able to use the data for purposes of data analysis and data modeling, for example, using the appropriate software to manipulate data into "what if" scenarios. The Economic Data Analyst will be assisted by a junior data analyst.

5. Computer Systems Specialist

This Specialist will be charged with technical support of the computer network, communications set-up and software in use within the TPU. This involves trouble-shooting specific problems as they arise, assisting in resolving operating or software problems and upgrading hardware and software as required. A less preferred alternative to having a Computer Systems Specialist within the

TPU would be to enter into a binding services contract with a qualified local computer services firm.

B. PERSONNEL QUALIFICATIONS

For the five positions proposed above, the preferred qualifications profile for each position is as follows:

Director, Trade Policy Unit

The incumbent should have a university degree in international relations or a similar field. Also, a minimum of five years' experience in the foreign affairs field, preferably with a government agency and which included attendance at or preparation for international meetings and trade negotiations, is required. The incumbent should also be computer literate, at least familiar with word processing and spread sheet software. The ideal incumbent will also have familiarity with international trade law sufficient to comprehend the basic provisions of international trade agreements such as CARICOM, TRIPS and TRIMS and such issues as customs valuations, rules of origin and a general knowledge of customs classifications. Previous supervisory experience, good writing and "people" skills would also be extremely useful.

Trade Policy Analyst - International

The incumbent should have a university degree in business, economics, or engineering. Previous computer experience is essential. Some overseas training or employment background contributing to familiarity with foreign organizations and environments would also be useful. An ability to interact with other people in other institutions is very important as is the ability to handle detailed information and to learn new computer and communications skills.

Trade Policy Analyst - Domestic

The incumbent should have a university degree in business, economics, or engineering. Previous computer experience is essential. Work experience involving the public sector with resultant familiarity with government organization and practices would be very helpful. An ability to interact with other people in other institutions is also very important as is the ability to handle detailed information and to learn new computer and communications skills.

Trade Information Specialist

The incumbent should have a university degree in business, public relations, or journalism/communications. Previous computer experience is essential. Previous experience in trade development, advertising, public relations or publishing overseas or in

Guyana is very important. The ability to handle detailed information and to learn complex computer skills, such as desk top publishing, is essential.

Economic Data Analyst

The incumbent should have the equivalent of a graduate (masters) degree in economics, statistics or computer science. Previous computer experience is essential along with sufficient background in economic or statistical analysis to oversee the development of information surveys and the adaptation of selected computer software for the purposes of data modeling.

Computer Systems Specialist

The incumbent should have the equivalent of a university degree in computer science or information systems. Previous experience in a computer services company environment which involved network installation, administration, upgrading and maintenance of both hardware and software is essential. The incumbent should have a work record which exhibits ingenuity and effectiveness in coping with computer system problems in the Guyana environment.

C. MTTI ORGANIZATIONAL RELATIONSHIP

Figures 1 and 2 show the present organization of the Ministry of Trade, Tourism and Industry and the proposed revised organization, respectively. Figure 3 shows the proposed organizational structure of the Trade Policy Unit.

In reviewing the tasks and capabilities proposed for the Trade Policy Unit, the consultants concluded that the Unit is designed to perform many of the functions now assigned to several other elements within the Ministry. To avoid duplication of effort and to concentrate the Ministry's resources, it is proposed that the Unit absorb the international law responsibilities of the Legal Advisor, the non-regulatory functions of the Foreign Trade Department, the Data Unit, and the informational system requirements for the GEPC and GO-INVEST.

The rationale for this recommendation follows:

The TPU Director will be expected to provide technical guidance to the Minister and Permanent Secretary in matters concerning trade agreements, interpretations of trade law and, inter alia, trade dispute questions. These functions are now performed by the Legal Advisor. The advantage to placing this function within the TPU is that the supporting technical information and analysis needed in providing this guidance will be generated within the TPU and can be managed by the Director to best suit his or her immediate requirements.

Among the tasks presently assigned to the Foreign Trade Division are: identifying constraints to trade and advising on ways to liberalize the trade regime, research and analysis of trade information, participation in trade negotiations, and support to the GEPC. In practice, little is done in these areas primarily due to a lack of information. All of these functions fall within the proposed scope of activity for the Trade Policy Unit which is expected to have access to the information and analytic skills required but not now available.

The Data Unit was established in 1991 and was supposed to have a staff of five and the capability to maintain a database and to perform trade and other economic analyses. At present it operates at a minimal level and has almost no analytical capability and very little in the way of organized data. With the overlap between the intended responsibilities of the Data Unit and those proposed for the TPU, absorbing the Data Unit into the TPU is logical. In addition, the TPU with its complement of computers will have the technical capacity to permit it to manage the computer environment for the Ministry as a whole.

Two of the MTTI sub-units have related missions that are highly dependent upon management information systems support. The two units are GEPC and GO-INVEST.

The GEPC, established in 1983, is responsible for facilitating exports through relationships with the Ministry of Foreign Affairs, the provision of "how to" oriented information to potential exporters, the collection and dissemination of market intelligence information, and managing trade missions and other efforts towards marketing Guyanese products. It is also tasked with the management of the Exhibition Compound at Sophia. Actual export promotion efforts are directed to non-traditional manufacturing with emphasis on furniture and handicrafts. The GEPC's performance has been greatly handicapped by the absence of data on foreign markets, market conditions and prospective traders. For example, its set of standard U.S. catalogs date from 1985. The consultants suggest that, in the current business environment with its seriously deficient infrastructure, the real export potential of non-traditional Guyanese manufacturers is limited. This limitation implies that the Ministry should review, very carefully, the level of effort warranted for specific trade promotion activities both in terms of actual benefits derived from those activities and from the point of view of avoiding effort duplication with respect to new private sector entities in formation such as the Private Sector Centre and the University of Guyana's Business Development Centre. In any event, the TPU will be in position to supply the information needs of the GEPC far more effectively than that agency has been able to itself and thus permit it to reduce its staff requirements accordingly.

The Guyana Office for Investment (GO-INVEST) was established to serve as a "One-Stop Shop" designed to assist local and foreign investors in launching enterprises in Guyana. As a quasi-government organization its task is to articulate government policy on investment and to promote Guyana as an attractive location for investment. It was expected to fuel the country's economic growth by providing efficient and effective

investor services. These services involve providing investors with complete information about Guyana including national economic and social data, procedures required to organize a business, available incentives and information on the legal and regulatory environment. GO-INVEST also serves as a liaison between investors and the appropriate government agencies and provides assistance to investors in completing necessary documentation. It can also assist in identifying available sites, prospective local business partners and bureaucratic requirements such as work permits.

On the surface, it appears that GO-INVEST, which replaced the Guyana Manufacturing and Industrial Development Agency (GUYMIDA), performs a critical function within MTTI that spans its trade, industry and tourism missions. In practice its performance has been at a level far less than what was anticipated. Among the reasons for this reduced performance level are a lack of current information and resources sufficient for active overseas promotion and a lack of statutory authority to assist prospective investors in other than an advisory role. It has, through the Guyana Embassy in Washington, D.C., developed a web site on the internet but does not appear to have the resources to expand the information available or to update the site on a continuing basis. GO-INVEST is also operating in an adverse investment climate. Guyana does not have an investment code nor does it yet appear to have a clear policy towards foreign investment. Again the GOG needs to review carefully the effectiveness of GO-INVEST's activities along the same lines as suggested for the Guyana Export Promotion Council. The information compilation and dissemination capability proposed for the Trade Policy Unit can, at a minimum, give GO-INVEST many of the tools it needs to promote investment successfully and, by assuming the role of an information source, allow GO-INVEST to redirect its resources to active investor assistance. As in the case of the GEPC, the data and information resources required for successful investment promotion will be available from the TPU.

Figure 1 Current Structure of the Ministry of Trade, Tourism and Industry

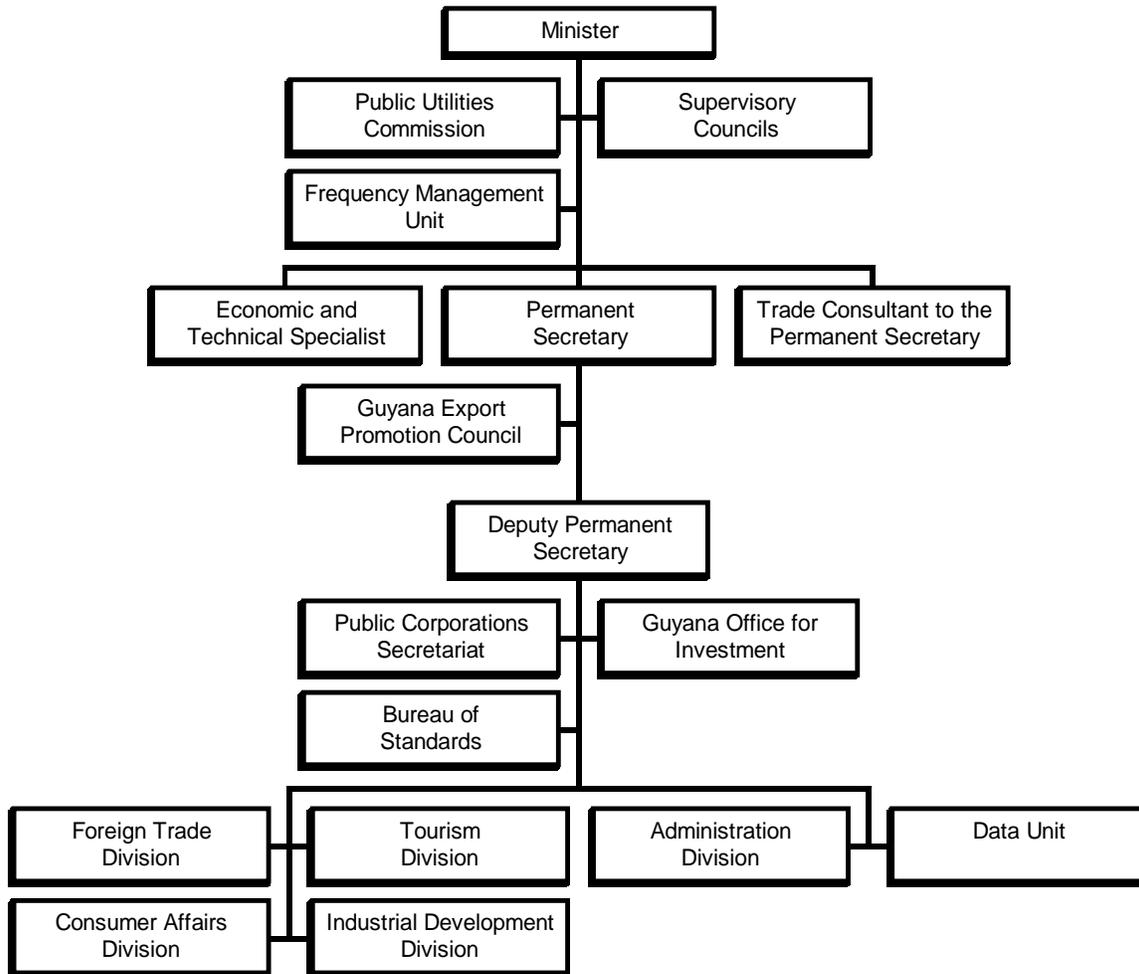


Figure 2 Proposed Structure of the Ministry of Trade, Tourism and Industry

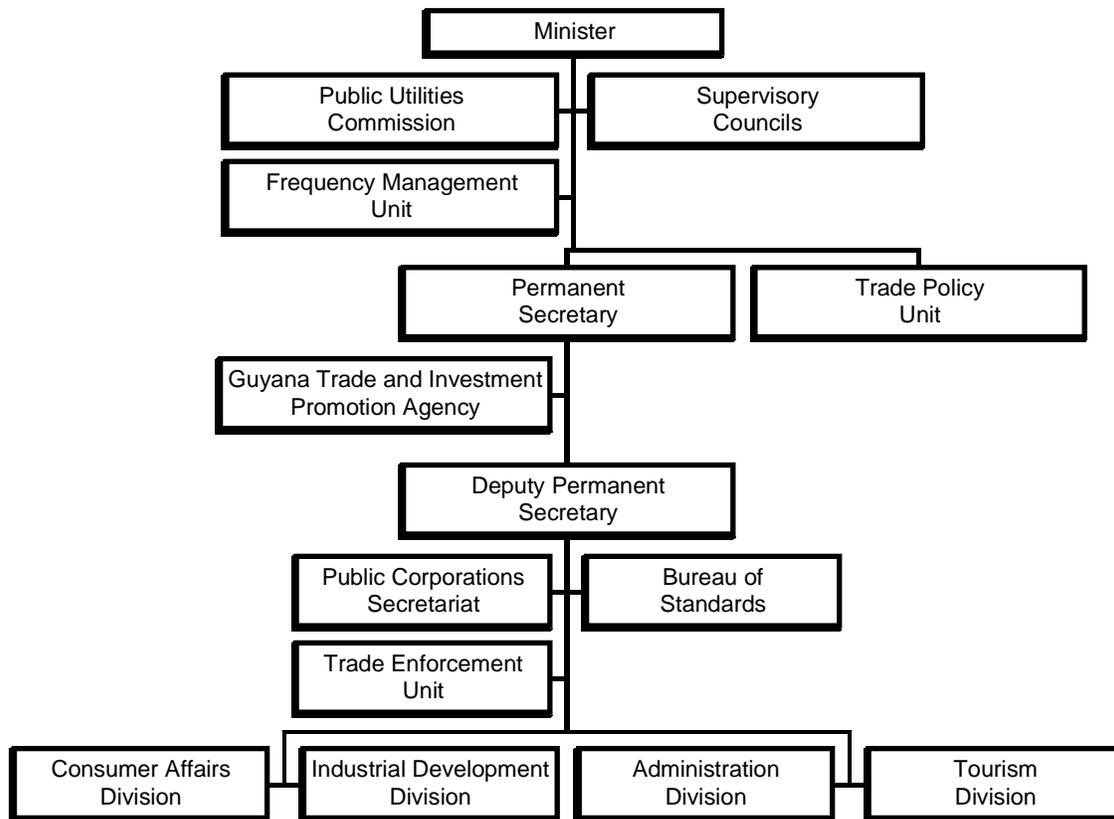
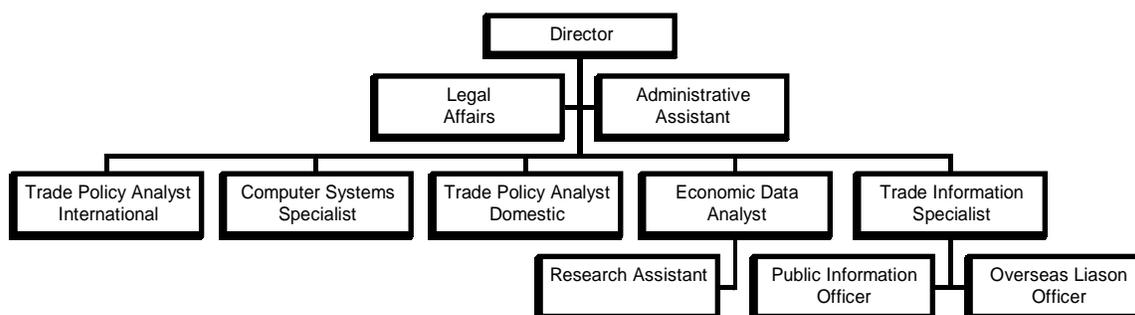


Figure 3 Structure of the Trade Policy Unit



D. Physical Facilities

A review of the physical facilities now in use by MTTI leads to the recommendation that the Trade Policy Unit be housed at the GO-INVEST facility, at Camp and Church Streets in Georgetown. In terms of space lay out and adequacy for computer installation, the GO-INVEST offices offer an easier prospect for conversion than any comparable space at the main Ministry building on South Road. Two alternative locations in the South Road MTTI complex that could serve as the location for the TPU are the large area on the middle floor that is currently occupied by the administrative staff and the ground floor annex at the rear of the complex. This latter location would be the preferred location for the TPU should a headquarters location be a binding constraint. An additional alternative might be one of the buildings not now in use at the Sophia Exposition Center, but questions of ease of access to and linkage with the main ministry offices would arise.

E. Channels of Communication between Ministerial Units

The requisite data for the development of accurate and timely analysis of trade issues is currently scattered. It is recommended that the internal data available in support of trade policy decision-making be concentrated within the TPU. To that end the following public sector entities should be included in the development of the information resources and a means of regular communication established.

The most important connection for MTTI and the TPU is the Bureau of Statistics within the Ministry of Finance. The Bureau of Statistics is the repository for a database of Guyana import, export, duty, tariff, and tax information. The primary source of the trade data within the Bureau is Customs. The Bureau of Statistics converts the customs data into database file format which can then be transported to MTTI. The Bureau of

Statistics is also responsible for the Guyana decennial census, the collection and summarization of tourism statistics, the Guyana National Income and Product Accounts and industrial production data. Most of these data collections can provide meaningful information to the TPU and should be examined in greater detail and a mechanism for the regular transfer of the data to MTTI should be established. The Bureau of Statistics currently has a 4mm tape drive and one of the machines for the TPU is proposed to be equipped with the same medium so that the data transfer between the units can be accomplished by simply exchanging tapes on a monthly basis. Another mechanism for data sharing would be to connect the two units electronically. This latter alternative could be accomplished with a simple telephone line based modem connection, or via remote access with one computer acting as a server, or with a simple Bulletin Board System (BBS). Another, longer term, alternative is to develop a high speed modem connection (CSU/DSU) between the two locations or to have them connected via a fiber optic based Wide Area Network (WAN). The WAN internetworking connection is certainly the direction that should be pursued and the possibility of public sector ministries interconnecting along with the private sector GT&T fiber ring should be vigorously pursued.

The other units within the Ministry of Finance that will be providers of trade policy data support include the Bank of Guyana (Guyana's Central Bank) and the Macroeconomic Policy Unit (MPU). The latter unit is currently being developed under the auspices of the USAID BEEP project. The MPU is presently involved in the development of a macroeconomic model of Guyana that uses the Revised Minimum Standard Model-Extended (RMSM-X) implementation from the International Economics Department Development Data Group within the World Bank. The RMSM-X model includes a foreign sector component that should be incorporated into the TPU policy analysis framework. The interaction between the foreign trade sector and other sectors of the RMSM-X model will provide a convenient basis for performing "what if" scenarios and developing quantitative measures of the relationships between the internal sectors of the Guyana economy. Further, the sensitivity analysis features of RMSM-X, augmented with some simulation enhancing spreadsheet software (@Risk), will allow the development of impact multipliers for estimating the likely effects of specific policy change. The model would be capable of providing timely and accurate assessment of policy effects for briefing analysis preparation prior to trade meetings. It would also provide the capability to examine likely effects from policy situation changes that arise during the negotiation phases of meetings and would provide a mechanism for the estimation of actual sector specific economic impacts for dissemination at the conclusion of trade negotiations.

Other ministries that should be interfaced with the TPU include the Ministry of Agriculture for land use and availability and supply side crop and livestock data and the Ministry of Labour for human resource factor prices and employment availability (demand and supply) in various occupational categories.

Including the Ministry of Foreign Affairs in an information sharing relationship with the TPU as well is also very important. Given the Ministry of Trade, Tourism and Industry's direct and indirect roles in promoting exports and investment in Guyana, and thus the country's economic development, it is critical that an interface be developed, whether through the Foreign Affairs Ministry or directly, between the TPU and Guyana foreign embassies and offices. This interface will permit country market intelligence to be effectively uncovered, compiled and developed so that available opportunities can be channeled through MTTI to the public. It is also expected that the TPU will provide analytic and data support for the Ministry of Foreign Affairs regarding its role in negotiation efforts on behalf of the GOG.

The Ministry of Education should also be included in the MTTI information system loop. Occupational skill requirements should be forecasted and provided to the education system (at all levels including technical, vocational, and higher education) for use in career planning and human resource development. Further, a channel of communication to the University of Guyana (UG) should be included in the analytical arm of the TPU. Dr. Clive Thomas directs the International Development Studies (IDS) center at UG and this unit could serve the TPU by providing quality research analyst expertise for specific projects. The University of Guyana should also be used to provide quality students to MTTI on an internship basis. This could prove to be a valuable source of inexpensive technical expertise in the TPU.

F. Channels of Communication with the Private Sector

An important mission component and objective of MTTI in general and the TPU in particular is the provision of trade information to the private sector. Private sector units that have data and information needs include the organizations embodied under the umbrella organization, the Private Sector Commission (PSC), which includes the Consultative Association of Guyanese Industry (CAGI), the Guyana Manufacturers Association (GMA), the Forestry Products Association, and the Georgetown Chamber of Commerce. One Private Sector Commission initiative that could significantly impact TPU development is the formation of a "Private Sector Centre." This unit is currently in the formative stages, but its mission includes a number of elements that are directly and indirectly related to the formation of the TPU and its ancillary database management and information provision objectives. Discussions with the Centre consultant, Mr. Peter Tomlinson, and Mr. David Yankana (CAGI) indicated their willingness to establish a data and information sharing link between their proposed Centre and the TPU information center being proposed herein. A formal communication with the Private Sector Commission would provide a means for the distribution of trade and other public sector information to the private sector constituencies that comprise the PSC.

Another initiative that spans both the public and private sectors is the joint venture between GO-INVEST, the University of Guyana, and Trevor Hamilton and Associates. This group has formed the University of Guyana Business Development Centre (UGBDC) which is housed within UG. The Centre's mission is, "Providing professional

services to modernize and enhance the competitiveness and sustainability of business, government, the public, private, and private voluntary organizations.” The Centre is advertised as a public-private sector venture with the public sector representation through GO-INVEST. An information sharing relationship between the TPU and UGBDC should be maintained and will be facilitated through the TPU’s role as information source for both GO-INVEST and the Guyana Export Promotion Council.

Other sectors within MTTI with private sector associations that require formal communication links include the industry and tourism divisions within MTTI. While the TPU is not directly related to endeavors within these divisions, information can be collected within the proposed information system that will provide useful data for both divisions and for private sector agencies that require the data to facilitate their decision making. The tourism division already has a relationship with the Tourism Association of Guyana (TAG) and this relationship should be strengthened through the provision of quality data and information from MTTI to TAG. The industry division should also become involved with the various private sector groups. This relationship can be developed through the internal interaction between the TPU and the industry division.

VII. RECOMMENDED DESIGN AND IMPLEMENTATION OF TRADE POLICY ANALYSIS SYSTEM AND THE GUYANA TRADE INFORMATION SYSTEM

To provide the computer-related and other, technical support capabilities required for the effective functioning of the Trade Policy Unit the consultants propose to develop two inter-related systems. The Trade Policy Analysis System covers the type of data and data analysis proposed for the TPU as well as the prospective information user network. The Guyana Trade Information System is the database structure through which information is accessed, collected, processed and disseminated. This Section describes the two systems in detail. Section Six, below, describes the equipment and software needed.

A. Trade Policy Analysis System (TPAS)

The Trade Policy Analysis System (TPAS) should be able to provide data and information in support of the following objectives:

- Economic impact in terms of contribution to purchasing power parity (PPP) adjusted real gross domestic product, national income, employment, and foreign exchange position.
- Trade flows including imports and exports by commodity, economic sector, country of origin and destination.
- Fiscal impact analysis that includes contributions to government revenue from tariff, duty, and tax collections as well as cost and benefit information associated with incentive oriented adjustments and exclusions from the normal tax structure.
- Activities and policies promoting foreign direct investment.
- Organization and processing impacts from incentive systems for trade and general business development.

Other areas that might require TPAS support include all Guyana public and private industrial organization and development initiatives. Specific areas that could benefit from the services of the TPU and its information infrastructure include:

- Public Enterprise
- Private Enterprise
- Privatization Unit Policy
- Import Substitution Policy
- Small (Microenterprise) and Medium Business Development
- Export Industry (Commodity) Targeting and Cluster Industry Development
- Foreign Direct Investment and Joint Venture Development
- Technology Transfer
- Tourism and Hospitality
- Marketing Guyana: Emigrant Information System

- Governmental Unit Private Sector Outsourcing

B. The Guyana Trade Information System (GTIS)

The Guyana Trade Information System (GTIS) will comprise a set of databases that will provide a means for accessing relevant data on a query basis. The databases to be developed and maintained internally or via regular communication with the source agencies include:

- External Trade Database

This database could be constructed from existing secondary sources including CARTIS, TRAINS/FTAA-IS, and NTDB.

- Internal Trade Database

This database already exists at the Bureau of Statistics in Dbase file format. Information on Guyana imports, exports, tariffs, duties, taxes, and exemptions are available by HS commodity and SITC-R3 classifications and by country code. The data are available from 1991 onward and can be sorted into time series formats of varying periodicity for statistical analysis and reporting.

- Guyana Business and Industry Database

The Guyana business enterprise database should contain company profile information including, contact data, business description and product information, annual sales range, number of employees range, and primary and secondary industrial classification information. The initial database could be taken from one of the CEDA internet sites and then expanded and maintained in conjunction with the Private Sector Centre, the SBCI and similar organizations. The business and industry database should include microenterprises, small and medium businesses and larger enterprises. All sectors of the economy, including the service sector should be cataloged in this database.

- Trade Marketing Intelligence Database

This database would have to be developed and maintained by the TPU. Sample forms of this database are available from CEDA, STAT-USA, or the Florida Trade Data Center (FTDC) in Miami. The database should contain business opportunity and trade lead information that is concentrated at the Ministry from a number of diverse sources including Guyanese overseas missions and agencies, publications, other trade lead sources and contacts. It is recommended that a contact management system be put in place to insure the effective and timely collection of opportunity oriented data and information. This task will be facilitated with the advent of internet accessibility and e-mail. The database

should also contain country specific analysis regarding the potential for business opportunities in the areas for which Guyana expertise exists. These country reports should take the form of the analysis that is present in the USDOC, National Trade Data Bank (NTDB).

- Labor Market Information Database

This database should be developed in concert with the Ministry of Labor and contain wage rates and current employment levels by occupational classifications. In addition, it should contain information regarding general labor market supply and demand. The database would allow for the development of accurate direct labor costs for particular applications and also serve as a means of identify and categorizing the availability of unskilled, semi-skilled, skilled, and professional human resources. The database should also provide information on labor union activity.

- Regulatory, Legal and Document Database

This database would be an electronic repository that would contain electronic versions of documents identified as important to trade policy and other segments of MTTI. Relevant documents would be identified and made available internally and externally in this database. An example of an element within this database would be information on Guyana's custom laws and regulations. This document is available to interested individuals in the United States from the Embassy of Guyana for US\$ 6 and is a 900 page Word Perfect document.

- Geographic Information System (GIS)

This system would work in conjunction with the SPSS statistical system and allow users to develop clickable maps of Guyana and its regions along with associated demographic, income and real estate information. The MapInfo Professional software system would serve as the medium for map development and products and reports that are generated from it can be made available to MTTI information users.

- Guyana Tourism Database

Tourism data should also be concentrated in database format for internal Ministry analysis and the preparation and publication of summary information to the public and other interested groups. The Tourism Association of Guyana has a dynamic leader and efforts should be pursued to develop tourism data resources jointly. The database could be developed with data the Ministry has (Guyana Annual Travel Statistics for various years) and augmented with historical data available from the Bureau of Statistics. The database should be updated on a monthly basis and should contain information necessary to provide a monthly

tourism fact sheet or newsletter. Hotel occupancy and convention and conference data should be collected, stored and reported as well. The data that was used to develop the “Guyana Visitor Survey 1993/94” should be obtained and incorporated into the tourism database. This data would provide a datum from which tourism performance from additional surveys could be compared. This kind of data is critical to the development of a tourism strategic plan for the Guyana economy and efforts should be taken to establish a regular visitor survey mechanism using airline arrivals and a professionally developed, tested and validated passenger survey instrument.

- Commercial and Industrial Real Estate Database

This database would be developed and linked to the GIS described above. It should be developed in conjunction with private sector initiatives and the regional real estate professional community. Commercial and business real estate market activity and property inventories should be included as well. The industrial sites portion of this database should also contain industrial park, business incubation center, and other land resource availability information. Development of this database should be performed in concert with the Ministry of Agriculture, Lands and Surveys Department.

- Permissions and Procedures Information Database

This database would aid in the foreign direct investment marketing efforts and also provide information to Guyana business on overcoming the institutional and information barriers to finding foreign markets for their products. Basic “how to” and “step by step” information would be available from this system.

This system of databases reflects the overall data service requirements for the entire Ministry of Trade, Tourism and Industry not just the trade policy component of the ministry. The logic for the expanded scope is that the incremental cost of establishing databases in support of other functional areas within the ministry is minimal. From a strict trade policy perspective the following databases are all that would be required:

1. External Trade Database
2. Internal Trade Database
3. Trade Marketing Intelligence Database
4. Regulatory, Legal and Document Database
5. Permissions and Procedures Database.

These five databases comprise the core data areas for information production necessary to support effective decision making in international trade policy.

The TPU should also include or have access to a library-oriented information repository of physical trade information, marketing, economic, and other documents and

publications. There are currently a number of items scattered throughout MTTI and these resources should be concentrated into a controlled library environment that can also manage access to CD-ROM based information products. In addition to concentrating existing publications and documents it is recommended that this library include documents from the World Bank, the International Monetary Fund, the United Nations, and other allied institutions. Also, a set of computer oriented reference manuals should be acquired and maintained. A current BEEP project TOR has been established for the development of public sector library resources and if library services are to be centrally housed elsewhere in the GOG then the TPU should have its own set of computer manuals, technical reference documents, and computer and trade policy books and publications. Where possible, the “virtual library” concept should be employed as electronic searching and retrieval is a more efficient method for accessing information. The development of virtual library resources is directly related to the degree of computer availability and internetworking capabilities throughout the GOG. There should also be a mechanism for controlling access to and monitoring a MTTI software library and its licensing and documentation.

C. Modeling Trade Data for Policy Analysis

The productive use of the data resources that are to be put in place requires a set of software tools and individuals with the expertise to employ them in policy analysis. The data resources constitute an inventory of raw materials that require processing. This processing produces information and is accomplished with applications of professional labor and software and hardware “capital” resources. What follows are descriptions of the necessary input requirements for the information processing process.

Software for Policy Analysis

Microsoft Office Professional with Access, Excel, PowerPoint, and Word

This is the basic software suite that will be available across all machines in the TPU. The software suite provides the user with a database program (Access), a spreadsheet (Excel), a presentation package (PowerPoint), and a word processor (Word).

Palisades @RISK add on for Microsoft Excel

This software is a user-friendly simulation add-on to a spreadsheet. It allows the user to incorporate uncertainty into a spreadsheet-based model (RMSM-X for example) so that probability oriented risk information about the impact of a particular policy can be provided to the decision maker.

RMSM-X

This software is a spreadsheet based (Microsoft Excel) modeling package. The Revised Minimum Standard Model Extended (RMSM-X), is available from the World

Bank, International Economics Department Development Data Group. A current implementation of the model is in use at the MOF and can be adapted for trade policy decision making purposes.

COMFAR

This software is the public sector equivalent of the private sector capital budgeting model. It allows decision makers to compute the Net Present Value (NPV) of a particular project after specification of the cost and benefit flows from the project and the social rate of discount. The software comes with a guide that develops a procedure for the imposition of fiscal discipline in the planning process.

D. Ministry Data Products and Dissemination Mechanisms

The data and information resources of MTTI are useless unless they are made available to decision makers and other interested parties in the public, private and international sectors. The dissemination of MTTI information and data should take the following forms:

Bulletin Board System (BBS)

While BBS systems are being replaced by internet sites they are still widely used and perform an important information transfer function. A large portion of the installed computer base in Guyana is already capable of accessing a BBS type system using modem-based communications. The BBS management software is relatively user-friendly and inexpensive compared to the overhead associated with an internet site. Familiarity with a BBS environment is also transferable to more complex dissemination mechanisms. It is recommended that one computer and phone line be dedicated to a 24-hour BBS. The operating software could be either Wildcat or Galacticom. The latter software can be upgraded to an internet provider environment should that be desired in the future. The BBS will make selected items from the various databases available to the public and the private sectors via dial-up access (the business database for example). The BBS environment can be controlled so that only users with an account on the system can access the information or it could be set up so that anyone could be allowed selective data access. This kind of environment would allow for uploading as well as downloading so that a method for adding to databases would be available.

Automated Fax System

An automated fax system is described in the description of the STAT-USA product and is also used by CEDA to supply business opportunity data. Users simply dial in to an automated voice menu system and select the particular items that they would like to receive from the system. Selections are stored and the requested information is then faxed. Those groups that want the information on a regular basis could register with the unit and, depending on the update frequency, the information would be distributed by fax

to all registered users. The information made available through this medium would consist of trade leads and business opportunity data collect by the TPU from its diverse set of contacts.

Internal Computer Network and Access to Other Governmental Networks

The Computer Needs Assessment made under a previous BEEP project outlined a Wide Area Network (WAN) for the GOG: while not practical immediately, the GOG would be well served to pursue development along these lines as rapidly as possible. Currently a private sector network is being implemented and, unless the public sector moves forward as well, there will be a significant “informational dualism” between the two sectors. The GOG needs to actively promote and support the development of information resources within its ministerial structure. While the scope of this report is limited to MTTI and its internal information requirements, it is clear that they cannot be developed effectively without support and coordination from other government agencies. An Inter-Ministerial Information Resource Committee structure should be considered with the objective to move the public sector forward and coordinate the information infrastructure development within the GOG. For the purposes of this project and the formation of the TPU it is recommended that that the following prioritized, external, connections be established for MTTI:

1. Bureau of Statistics
2. Private Sector Centre
3. Bank of Guyana
4. Ministry of Agriculture
5. Ministry of Education/University of Guyana
6. Ministry of Labor.

MTTI also requires internal connections between its various components. The communications layout will, of course, depend on the physical locations involved. Placing the TPU in the GO-INVEST facility, as recommended, would leave open the question of connections to the GEPC and the main Ministry offices. Placing the TPU in the main Ministry building leaves GO-INVEST and GEPC to be connected. Strictly from the standpoint of network connectivity, a single facility containing all the Ministry elements would be optimal.

Internet Access: Web Site Development, FTP Site, Use and News Groups

The internet is fast becoming, if not already, the preferred information delivery mechanism in the developed world. The initial “gopher” sites have yielded to the concept of a “web” of computers interconnected and accessed using Graphical User Interface (GUI) software (browsers like Netscape or Microsoft’s Internet Explorer). In order to access the internet one requires a connection to the network and a service provider. GT&T is providing the telecommunications connection and internet service provision can be either developed internally within the GOG (this is the recommended strategy) or

outsourced to a private sector provider. MTTI should develop its own home page on the web so that interested private and public sector groups, agencies and individuals can access the information resources developed by MTTI and the TPU in a convenient fashion. One historic difficulty with the distribution of publications and information to the private sector from MTTI has been the relatively high cost of printing and publishing and the absence of a cost recovery scheme. An advantage of electronic dissemination is that the printing cost is transferred to the user of the information. Thus, an internet web site for MTTI would allow for regular reports, fact sheets, newsletters, etc. to be distributed to the public at large on an as desired basis. Access to the site can be controlled and measured and, with forms processing, users can submit data for inclusion into databases. Further, internet access means the development of international electronic mail, file transfer with recent developments even allowing real time voice communication and document sharing over the network (Microsoft Netmeeting Beta software is an example of this). These features will allow for the development of regular communication between Guyana and the rest of the world and permit Guyana to keep pace with the evolving technology designed to facilitate trade via the internet (Electronic Commerce). The importance of embracing this technology for the GOG in general and MTTI in particular can not be overemphasized.

Trade Seminars, Conferences and Workshops

The development of regular seminar and workshop series for users of public sector data and data specifically from the Ministry of Trade, Tourism and Industry is recommended. This series could serve to showcase the information resources within MTTI and to demonstrate to the public the use of modern information technology. This forum would also serve to disseminate the results of, and opportunities from, completed trade negotiations.

Local Media: Television, Radio and Print, Public Service Messages and Features

These sources of publicity should not be ignored and a regular business and international business feature should be developed for both the print and electronic media (e.g. Economic Justice for All). MTTI should develop and distribute regular press releases regarding trade, industry and tourism related activities to inform the public and to ensure public awareness of MTTI activities in support of Guyana's business community.

Newsletter, Fact Sheets, Etc. Development and Distribution

A newsletter/fact sheet publication initially on a quarterly basis with plans to move it to a monthly basis should be developed. This publication should be made available in hard copy format and also made available for electronic dissemination. The most recent information available should be included in this document and it should be professionally constructed.

VIII. RECOMMENDED COMPUTER RELATED AND SOFTWARE ACQUISITIONS TO SUPPORT VII

A. Ministry of Trade, Industry and Tourism Computing Environment

For the Trade Policy Analysis and Guyana Trade Information Systems to function, the consultants recommend the following equipment, accessories and software.

Overview of the Proposed Computing Environment

A simple peer to peer network is proposed as the first phase in development of a computer based trade information system within MTTI. The advantages of this phased implementation strategy is the relatively low cost in terms of hardware, infrastructure and human resources. A peer-to peer network does not have a server system per se although some machines would be designated as primary machines. A peer to peer network does not require the overhead associated with a network operating system (Novell or NT) but still provides all the basic networking advantages of physical resource sharing, file sharing and e-mail. When warranted, a second phase of the MTTI information system development strategy would be to augment the system along the lines of the computing environment described in the BEEP project report, "Computer Needs Assessment: Ministry of Finance; Ministry of Trade, Tourism and Industry."

The proposed network would interconnect twelve new computers: two designated as primary machines; eight workstations; and two portable notebook computers. The physical layer of the network would be 10BaseT, the IEEE 802.3 specification that uses category five unshielded twisted-pair cabling (Cat5UTP) and runs at 10 Mbps (Mega bits per second). The computers would be interconnected in an Ethernet star-topology using an Ethernet multiport repeater (a concentrator or, more simply, a hub). Each computer or workstation requires a network interface card (network adaptor).

The peer to peer networking operating system could be either Windows 3.11 (Windows for Workgroups) or Windows 95 or a combination of the two. The latter strategy, incorporating both operating systems into the network, would serve as a bridge toward more sophisticated network structures as the information systems develop. Existing familiarity in Guyana with Windows 3.11 (3.1) would allow the unit to be up and running quickly. The Windows 95 environment would allow users to gain familiarity with that operating environment and provide a basis for a smooth transition to internet connectivity when it arrives (GT&T states that internet access will be available in Guyana in September, 1996). It would also help in the transition to a client-server network environment using either Novell 4.1 or Windows NT when the unit reaches the size beyond which there is a degradation in performance from a simple workgroup (peer to peer) network organization.

Since a great deal of information is either already available or is currently planned to be available on the internet, it is recommended that the TPU connect to that medium as

soon as it is available in Guyana or through long distance dial-up services to Barbados if the TPU is implemented prior to internet access in Guyana. Some consideration should be given to a public sector provision of internet connectivity so that individual ministries could connect. This would involve the registration and establishment of a "Class C" internet site with a set of IP (Internet Protocol) addresses (123.456.789.xxx) somewhere within the GOG. Individual ministries could then connect to that environment with their own domain name servers and create and manage their own home pages and publicly available information resources. An example MTTI address resulting from this strategy would be: <http://www.mtti.gov.gy>. In addition to a web presence via a home page, an individual ministry could also create an FTP (File Transfer Protocol) site on the server for large file and software sharing and exchange. The hardware recommended will provide a basis for establishing either a UNIX (the LINUX UNIX system is available as shareware but requires some relatively sophisticated technical administrative support) or a Windows NT server within the TPU. Both of these operating systems support the TCP/IP (Transfer Control Protocol/Internet Protocol) protocol suite for internetworking. The Private Sector Centre proposal indicates that they have adopted the Windows NT platform as their preferred network operating system.

Specific Hardware Components

The following hardware is recommended for the start-up phase of the Trade Policy Unit. The pricing information shown reflects U.S. retail prices and does not consider procurement policy procedures or other pricing arrangements.

Power Supply and Management

Neither the MTTI headquarters building nor the GO-INVEST building have adequate electrical power from GEC. Sources familiar with current power facility construction activity suggested that additional capacity and improved electrical supply reliability would be online by October 1996. Short of that condition, the best case solution would be to develop a self contained power supply for each building using supplemental generators. The cost of this option should be compared with the benefits gained from having a continuous supply of electricity. In any event, each machine should be connected to the power supply through a surge suppresser (eg. Tripp Lite Isotel 8 Ultra) that is, in turn, connected to an Uninterruptible Power Supply (UPS). The primary computers should be protected by a quality UPS (APC Back-UPS Pro 1000 or 1400, US\$ 600, US\$ 800) that provides backup electrical power for 35 to 75 minutes. The other machines would require a less expensive UPS (four APC Back-UPS Pro 420 or 650, US\$ 250, US\$ 325).

Total Power Supply and Management: US\$ 2,400

Cabling

1. 10, 25' Category 5, UTP patch cables with RJ45 jacks (US\$ 75)

2. 500' spool of plenum rated Category 5 UTP cable and a box of RJ45 jacks (US\$ 200)
3. One RJ45 jack crimping tool (US\$ 75)
4. Cable conduit (US\$ 75)

Total Cabling: US\$ 425

Networking Devices

One 12 port 10BaseT ethernet hub with SNMP (Simple Network Management Protocol).
HP Advancestack-12 (US\$ 950)

Total Networking Devices: US\$ 950

Computer Hardware Requirements

Recommended computer brands are either Dell or Gateway 2000. Pricing information for computer systems is based on Gateway 2000 products. These machines come bundled with licenses for the Windows 95 operating system and Microsoft Office Professional. If the computers are purchased from other vendors an equivalent price for bundled software must be computed.

Primary Computer Hardware Specification

The two primary computers should be Intel Pentium 166MHz, with 32MB of EDO DRAM, a 256K pipeline burst cache, a 2GB fast SCSI-2, 9ms hard drive, a 3.5" diskette drive, a 4mm DAT tape drive, a 6X EIDE CD-ROM drive, a 16 bit wavetable sound card with Altec ACS-40 speakers, 2MB DRAM, 64 bit PCI graphics accelerator, 17 inch .28dp color monitor, keyboard and MS Mouse, 28.8 fax/modem, 3-Com 503 ethernet card and a tower case. (US\$ 4,000 each, Total US\$ 8,000)

Workstation/Client Computer Specification

These computers should be the configured exactly as the primary one with the following exceptions: 2GB EIDE hard drive, 16 MB of EDO DRAM, 16 bit sound card, 15 inch monitor and no fax/modem. (US\$ 3,000 each, Total US\$ 24,000)

Portable Notebook Computers

These machines should be used for presentations and to accompany those responsible for trade negotiations so that "real time" adjustments can be performed during the course of trade deliberations. When not "on the road" the computers serve as "workstations" by connecting them to the network and providing an additional monitor and keyboard with a docking station. These units should be Intel Pentium P90 computers with 16MB of DRAM, 1.2 GB hard drives, color display, PCMCIA 28.8 modem and

ethernet cards, CD-ROM drive, sound card, 3.5 inch diskette drive, and docking station. (US\$ 4,500 each, Total US\$ 9,000)

Total Computer Hardware Systems: US\$ 41,000

Computer Software Requirements

All computers should have Microsoft Office Professional installed. Office comes bundled with many complete computer systems, but if purchased separately is approximately US\$ 500 per installation. One primary unit and half of the remaining computers should use the Windows 95 operating system. The other primary computer should run the Windows NT Server operating system in addition to Windows 95 and perhaps the LINUX system as well while the remaining computers should use the Windows for Workgroups (WFW 3.11) operating system. In addition, the primary computers should be configured with a mix of the following software:

Windows NT Server (US\$ 600): While it is not recommended that the TPU come up immediately within a client server environment the existence of this operating system will provide for familiarity building and also allow work directed toward the development of a Web site.

Dbase 6.0 for Windows with Report Smith (US\$ 500): This is the Windows-based version of the Borland Dbase database software package along with a customizable report generator add-on. Even though all the machines will have Microsoft Access, some data will continue to be provided in Dbase file format so that the availability of Dbase will increase the functionality of the unit. Over time as the installed databases grow in size and complexity and the query requirements become more intensive the Oracle relational database system should be considered.

SPSS, Base, Advanced, Tables, Trends, and MAPINFO (US\$ 2,000): An advanced statistical software package (Statistical Package for the Social Sciences) for the sophisticated statistician along with a geographical information system add on. This software is designed to deal with survey oriented data and its analysis.

SAS (US\$ 1,500): An even more advanced statistical package for the professional statistician. The Statistical Analysis System is a complete data modeling environment and its strongest feature is its data handling and manipulation features. The SAS system is relatively complex and requires a heavy investment in training to become familiar with its features. Once familiar with its use, however, it is a powerful modeling and data handling environment. The existence of this system in the TPU will encourage those responsible for trade modeling and analysis to become familiar with it over time.

Minitab 10Xtra for Windows (US\$ 500): Statistical software that is user friendly, easy to learn and use that is geared toward working with questionnaire oriented data

and associated tables and cross tabulations. This software compliments the SPSS package but is easier to use.

EvIEWS (US \$500): Statistical software that works well with time series data and also provides the ability to develop structural equation model forecasts. This software compliments the SAS package but is easier to use.

Netscape 2.01 plus PowerPack add on software (US\$ 100) Internet browser software for managing sites, e-mail, news group access, etc.

One of the additional computers should be configured as a desktop publishing workstation and should contain a copy of Adobe PageMaker 6.0 (US\$ 475), Corel Draw 6.0 (US\$ 425), and Adobe Photoshop 3.0 (\$ 450). This machine should have the scanner attached to it along with providing print server services for the color inkjet printer.

Additional software to be added to some or all of the machines includes:

Ascend 5.0 Contact Management (US\$ 75)
 Mcafee VirusScan v2.2 (US\$ 45 each, 12)
 Synchronys Softcorp Softram 96 (US\$ 35 each, 12)
 Galaticomm or Wildcat BBS (US\$ 125)

Total Software: US\$ 8,210

Additional Hardware Required

1. HP Laserjet 4M Plus Printer (US\$ 1,800)
2. HP 855C Inkjet Printer (US\$ 500)
3. HP Scanner, Scanjet 4C (US\$ 900)
4. SyQuest external 135MB removable cartridge drive (US\$ 250)
5. HP Page Scanner 4s (US\$ 375)
6. LCD Panel or Projector (US\$ 4,000)
7. External Parallel Tape Backup Drive, Colorado Jumbo (US\$ 150)
8. Plain Paper FAX (printer, scanner, fax) (US\$ 600)
9. Four U.S. Robotics V.everything External 28.8 modems (US\$ 400 each)

Total Additional Hardware: US\$ 10,175

Miscellaneous

1. Extra toner cartridges for the laser printer
2. Extra ink supplies for the inkjet printer
3. Moveable office partitions for workspace areas
4. Diskettes, cartridges, and tapes

Total Miscellaneous: US\$ 1,925

Table 1
Itemized Budget

Primary Computers.....	US\$ 8,000
Workstations.....	24,000
Notebooks.....	9,000
Power Supply Equipment.....	2,400
Additional Hardware.....	10,175
Network Hub.....	950
Software.....	8,210
Miscellaneous.....	1,925
Total.....	US\$ 64,660

Annual Data Subscription Estimates

STAT-USA, US\$ 495
 IMF Financial Statistics, US\$ 360
 OECD Databases, US\$ 950
 NTDB, US\$ 360
 CEDA, US\$ 200
 Internet Provision, US\$ 500

Other

Books, Manuals and Documents US\$ 1,000

Total Subscriptions and Publications: US\$ 3,865

Total Amount to Develop The TPAS and GTIS: US\$ 68,525

The TPU computation and analysis network will require approximately US\$ 68,525 to configure as recommended. The estimate does not include any adjustments to the selected facility or additional office furnishings and equipment. A less preferred configuration could be developed by reducing the number of machines acquired. A minimum configuration would reduce the number of primary computers to one, the number of portables to zero which would obviate the need for presentation equipment, and the number of workstations to six. The result of these changes would be to reduce the implementation cost by US\$ 23,000 so that the minimal configuration would cost approximately US\$ 45,525.

B. Information and Data Systems to Acquire or Access

1. CARICOM Trade Information System (CARTIS)

The CARICOM Trade Information System (CARTIS) is currently being maintained and developed by the Caribbean Export Development Agency (CEDA). Mr. Vince McBean has indicated to the consultants that a significant amount of Guyana data is already available from their information resources. Further, he has been in contact with GEPC and has some equipment funding available for GEPC in conjunction with an initiative between CEDA, GEPC, and a private sector marketing firm, Creative Advertising and Marketing. The CARTIS system is expected to be available on-line as a subscription based internet site by September. The anticipated annual subscription fee is US\$ 150. The CARTIS system contains four databases:

- Company Profile Database
- Import and Export Trade Statistics
- Import Trade Regulations
- Business Opportunities (Trade leads)

CEDA currently has sponsored three internet sites, the URL's for the sites are:

- <http://www.caribnet.net/ceda>
- <http://www.trinidad.net/cartis>
- <http://www.worldbox.com/caricom/HOME.HTM>

The CARICOM home page contains an export database with an attached search engine that allows for real time queries. CEDA also has an automated "fax/back" service for the dissemination of trade information. CEDA can be contacted at 0011.809.436.0578 (FAX: 809.436.9999, Email: cartis@caribsurf.com), P.O. Box 34B, St. Michael, Barbados.

2. UNCTAD Trade Analysis and Information System (TRAINS)

The TRAINS database system is a CD-ROM product that contains worldwide trade flow statistics by product, harmonized code, and country. The UNCTAD internet site (<http://gatekeeper.unicc.org/unctad/>) contains the following information (as is) about TRAINS:

Trade Information: TRAINS

Trade is deeply affected by national trade laws, regulations and administrative procedures. Considerable skill is needed to manage large amounts of complex data on such trade information in order to formulate sound trade policies, including export strategies.

Trade control measures (TCMs) are measures that, either in practice or potentially, affect international trade flows by introducing different treatment for foreign production as compared to domestic production, whether because of the basic nature of the measure or because of the way it

is applied. UNCTAD has developed a comprehensive computerized information system at the HS-based tariff line level covering all these measures for more than 50 countries, known as UNCTAD's Database on Trade Control Measures.

Objectives

The broad objective of the constitution of the Database and its dissemination is to increase transparency in international trading conditions and thus facilitate trade. The Database on TCMs is also utilized for the following more specific purposes:

- * To analyze developments in national trade policies and world trading conditions;
- * To prepare reference materials for trade negotiations;
- * To analyze conditions of access to external markets for export promotion; and
- * To undertake research on trade policies.

Features

Member States have designated national focal points for the dissemination of information from the Database on Trade Control Measures. On request, the focal points are supplied with the TRAINS CD-ROM. TRAINS is a PC-based system, containing information from the Database, combined in an integrated manner with other relevant trade components. TRAINS is designed to render compatible the presentation and analysis of these different databases, utilizing the Harmonized Commodity Description and Coding System (HS) as the common classification

A copy of the UNCTAD TRAINS (Spring 1994, version 2.0 A) CD-ROM was made available to the consultants by MTTI. Data availability on this version of TRAINS was as of December 31, 1993 and did not directly include Guyana data although it did include data on most of Guyana's major trading partners. While more up to date versions of the software are available, the main features of the system were discernible from the provided version. It is recommended, however, that the most recent version of the TRAINS software be acquired. TRAINS is easy to use and little training is required in order to access the information it contains.

The TRAINS documentation suggests that "TRAINS is intended more specifically for use by policy-makers and economic operators engaged in exporting, providing them with a comprehensive information system. It is also a powerful tool, both for trade negotiations, for instance for monitoring of an integration process, as well as for general research on international trade." TRAINS provides information in the form of six different databases that all use the Harmonized Commodity Description and Coding

System (HS) that comprises 5,018 basis items for a common classification basis. The databases include:

- a. The UNCTAD database on trade control measures which covers tariff, para-tariff and non-tariff measures and information on the Generalized System of Preferences (GSP).
- b. Trade data on imports at the six digit HS level.
- c. The System of International Customs Tariffs Bureau which provides product descriptions of national tariff items beyond the six digit HS level.
- d. An alphabetic index of the Standard International Trade Classification (SITC).
- e. The importers database of the UNCTAD/GATT/ITC which contains names and addresses of importers.
- f. General documentation on various data elements including import regimes, the GSP and bibliographic references to published market research studies and reports.

CARICOM has agreed to collaborate with UNCTAD in the further development of TRAINS and Guyana should work towards having its data included in future versions of the TRAINS information system.

A newer version of TRAINS, developed strictly for the Americas, was also provided to the consultants. This version contained country submission data for 1995/1996 and is a version of TRAINS prepared by the Free Trade Area for the Americas (FTAA) working group on market analysis. The project is sponsored both by the Inter-American Development Bank (IDB) and UNCTAD and the product is the Free Trade Area for the Americas - Information System (FTAA-IS). FTAA-IS is similar to TRAINS but has a Microsoft windows application interface which provides some additional ease of use. Guyana has not yet submitted country data for specific inclusion in the model. It is recommended that one task of the TPU GTIS be to interface with both TRAINS and FTAA-IS to provide Guyana trade data for inclusion.

3. U.S. National Trade Data Bank (NTDB)

The U.S. Department of Commerce, Economics and Statistics Administration, Office of Business Analysis (202.482.1986) produces the NTDB: "The Export Connection" for public dissemination. The NTDB is available for subscription from the USDOC at an annual fee of US\$ 360 which includes a monthly distribution of the two CD's that comprise the NTDB system. NTDB is also available on the internet through STAT-USA (<http://stat-usa.gov>) for a US\$ 495 annual subscription fee. STAT-USA includes more information than the NTDB and is described in detail below. The NTDB is an extensive collection of U.S. trade data and trade related information and documents. The NTDB also includes an International Yellow Pages CD which contains a large

volume of global contact information. The programmatic data available within the NTDB database and the contributing agencies are presented on a diskette in an electronic supplement to this document.

4. STAT-USA (<http://stat-usa.gov>)

STAT-USA is a new internet based resource that concentrates a significant amount information in a one-stop context. The following description of the services offered by STAT-USA was extracted "as is" from the December 1995 NTDB CD-ROM.

STAT-USA UNITED STATES DEPARTMENT OF COMMERCE

HEADQUARTERS: STAT-USA (formerly the Office of Business Analysis) is part of the Economics and Statistics Administration of the U.S. Department of Commerce in Washington, D.C.

CORPORATE MISSION: STAT-USA produces and distributes world class business and economic information products that American businesses and the public need to make intelligent and informed decisions. STAT-USA is founded on the idea that improved information flow will enable the business community to improve its competitiveness in the global marketplace, and to create new jobs and opportunities for American workers. STAT-USA promotes informed decision making as the basis for sustainable U.S. economic growth.

PRODUCTS AND SERVICES: STAT-USA's role in disseminating federally sponsored and produced business and economic data began in 1985 with the creation of the Commerce Department's Economic Bulletin Board(R) (EBB). The EBB was the government's first attempt to provide up-to-the-minute economic and trade information from one U.S. Government source. and it continues to be one of the most often accessed sources of federally-produced economic and trade data. In September 1990, STAT-USA released the first issue of the National Trade Data Bank (NTDB). Mandated by the Omnibus Trade and Competitiveness Act, this "Trade Information Library" uses the latest in CD-ROM technology to provide American businesses with the largest single source of trade data available in the world. In April 1992, STAT-USA released the National Economic, Social, and Environmental Data Bank (NESE-DB) CD-ROM, which serves as the domestic counterpart to the NTDB. On January 3, 1995, STAT-USA(tm) opened to the public a companion service to the EBB, STAT-USA/Fax. STAT-USA/Fax permits subscribers to use their FAX machines to obtain many of the economic, financial, and trade news reports found on the EBB. STAT-USA(TM) opened on the Internet in June 1994 and should now be available through other media as well.

IX. RECOMMENDED TRAINING AND IMPLEMENTATION SCHEME TO FOLLOW ACQUISITION OF ITEMS LISTED IN VIII

Once the hardware is acquired, a training program for software/hardware configuration and individual software package training should be implemented. This training program involves the following stages:

A. Human Resource Skills Requirements, Assessment and Development

The degree of training required will depend on the skills and background of the individuals selected to fill the TPU positions. The skill sets that should be held by everyone in the unit include:

- Computer operating system familiarity, DOS, Windows 3.11 and Windows 95
- Microsoft Office Professional familiarity, especially word processing and spreadsheets (Word and Excel)

Specific skills that must be available in certain individuals include:

- Database design, development and management using Microsoft Access and Dbase
- Telecommunications
- Desktop publishing using PageMaker and Corel Draw
- HTML knowledge
- Statistical software familiarity and statistical modeling knowledge
- Computer hardware and software technical knowledge
- Computer software and hardware training

For the most part, training should be accomplished through a combination of in-house workshops and some outsourcing to computer training centers in Georgetown. The recommended training strategy would be to use a BEEP project consultant or a local training provider to identify and train two individuals in the unit who would then train others in the Ministry. This train the trainers strategy, coupled with a human resource oriented professional development strategy within the Ministry at large will provide an enabling environment for progress and ultimate project success.

To counter the problem associated with the current public versus private sector wage differentials and the resulting personnel turnover as labor resources respond to market forces, it is recommended that MTTI adopt a “pipeline” personnel system. The strategy is always to have an apprentice targeted for primary positions and to have that person work in the same job description and in close contact with the experienced person.

B. Computer System Implementation

The actual implementation of the computer system portion of the TPU includes the following tasks:

1. Develop the selected site to include partitioned office suites that are a comfortable (air conditioned, carpeted, etc.) and adequately equipped work environment.

2. Individual computer and accessory configuration and setup.

Setup the individual computers and insure that all hardware operates properly. Attach all peripheral equipment and ensure its functionality.

3. Network setup.

Run network cable from each computer to the hub and configure the hub.

4. Workstation computer software installation and setup.

Identify individual computers that will support specific unit tasks and install appropriate software. Particularly, identify the computer to be used for desktop publishing and other media development, the computer to be used for domestic Guyana data storage and analysis, the computer to be used for international data storage and analysis, the computer to be used as a BBS server, and the computer to serve as the electronic document repository and contact manager. Install and configure appropriate software.

5. Primary machine software installation and setup.

On one of the primary computers install the SAS and Eviews statistical modeling software and install the SPSS and Minitab statistical modeling software on the other. On one computer install Windows 95 and Windows NT and on the other install Windows 95 and the LINUX operating system. These machines will both have dual operating systems; the particular operating system for a session can be determined at boot time. Install the Netscape software on both computers along with Netscape Powerpack.

6. Establish connections with other units.

Install communication equipment (modems) at remote locations and configure the communication interface. Remote locations include other MTTI locations (if required), the Bureau of Statistics, the Private Sector Centre, and the Bank of Guyana/Ministry of Finance. Develop documentation and “how to” sheets for establishing connectivity with remote sites.

7. Database development.

Begin developing the data structures for the individual databases and acquire all required data from the various data sources. Develop explicit documentation for each database including data sources, frequency of update and contacts required for update, standard report formats and listing of data users.

8. Modeling software setup.

Install the modeling software RMSM-X and develop the foreign sector component for trade policy analysis. Install and incorporate the @RISK simulation software and develop appropriate reporting formats. Document the procedures and methodologies associated with trade policy system.

9. Begin design and development of specific TPU information products.

Develop content for the BBS, trade leads and business opportunities. Develop summary measures of current and historical import and export information. Develop cost benefit measures and comparative advantage assessments for specific products. Develop a timing schedule for data and information release.

10. Modeling and forecasting.

Establish a statistical modeling process that includes a Guyana macroeconomic forecast under the most likely macro policy scenarios. This Guyana model could be developed within the TPU; however it would be more appropriate to develop and maintain it in the MOF, specifically at the Research Division in the BOG or within the Macroeconomic Policy Unit. Given the domestic outlook, the international demand for Guyanese products should be estimated on a market to market basis concentrating initially on Guyana's main trading partners within and outside of CARICOM. Product specific demand estimates should then be disseminated. This demand forecasting process should be on at least a quarterly basis and more preferably on a monthly basis.

C. Computer Hardware and Software Training

Training Seminars

Identify those individuals who best offer potential to develop an in-house training program and produce a training seminar series for them. Make use of the computer presentation environment and produce a series of half day workshops on fundamental computer skills. These training seminars should contain the following content:

- The Windows and DOS operating system environment.
 - a. Fundamental DOS Commands and directory structures

- b. autoexec.bat and config.sys content and problems
 - c. Windows for Workgroups 3.11 fundamentals
 - d. Windows 95 Fundamentals
- Directories, file structures, types and management using explorer and file manager.
- Basic file editing with a screen text editor.
- The Microsoft Office software suite.
 - a. Microsoft Word
 - b. Microsoft Excel
 - c. Microsoft PowerPoint
- Interaction and data sharing between Word, Excel and PowerPoint.
- Microsoft Networking.
 - a. Communication between computers, mail and chat
 - b. File sharing through permission sharing
 - c. Printing fundamentals and printer sharing
- Basic software problem solving and trouble shooting.

Training Workshops

Use a consultant to develop training workshops in the following areas:

- Technical hardware configuration, including Windows .ini file editing and troubleshooting, interrupt (IRQ) conflict resolution, fundamental disk drive maintenance and troubleshooting, and procedures and techniques for adaptor card, disk drive, and memory additions and removal.
- BBS system operator (SYSOP) training using a selected BBS software package.
- Remote computing procedures modem configuration and communication protocols including remote access in the Windows NT environment.
- Fundamentals of UNIX and Windows NT
- Basic internet protocols and procedures
- Fundamentals of the Hyper Text Markup Language (HTML)
- Fundamentals of the World Wide Web (WWW) and Web Servers

- Internet e-mail (Eudora), FTP, News Groups, and List Serves

D. Statistical Software and Modeling

This is the most complex area and training requirements will depend on the training and experience level of the analyst hired for the position. It is in this area that close ties with the University of Guyana with regard to econometric modeling, statistical data analysis and forecasting would be beneficial. Some initial outsourcing to UG for model development and training would establish a relationship between UG and the TPU. If the required expertise is not available in Guyana then short courses at other academic institutions (e.g. University of the West Indies) or training centers could be used. A number of off the shelf workshops are available or a customized workshop could be developed with external academic institutions (the University of West Florida for example).

E. Other Training

For other software training there are a number of courses offered in Georgetown. Specifically, desktop publishing training using Adobe and Corel Draw should be outsourced along with more rigorous training in database design and development using Access and Dbase. The individual(s) selected to perform the in-house training function would benefit from specific courses in each software package area. In addition the main computer specialist would benefit from courses in the UNIX and Windows NT operating systems including Perl script development. At some point advanced training in networks using Novell would be desirable. An individual should be targeted to pursue the Novell CNE (Certified Network Engineer) designation. Again, in addition to private sector training courses, the University of Guyana should be contacted for possible professional course development specifically for the TPU and other areas within the GOG.

X. PROPOSED POLICY (NON-COMPUTER) TRAINING PROGRAM

Much of this proposal is concerned with the acquisition, installation and training directed at the establishment of a peer-to-peer computer network within the Ministry of Trade, Tourism and Industry. The purpose of the proposed acquisition, classification, storage and dissemination of information is to support Guyana's trade policy process directly and, indirectly, its efforts to expand trade and attract investment. Substantive training in policy analysis, market intelligence and data analysis, trade agreements and negotiations will be useful in providing the necessary framework for the application of the computer resources and capabilities.

The most cost effective method of training is that of short term workshops or seminars conducted by experts in their respective fields in Guyana and which are structured to allow interaction and learning with a limited number of participants. An initial series of four workshops is proposed: 1) Trade Law and Dispute Settlement; 2) European Trade Policy; 3) Market Research and Data Analysis; and 4) Economic Modeling/Decision Support Systems.

1. Trade Law and Dispute Settlement

This workshop will address the provisions of U.S. Trade Law with emphasis on trade complaint definitions and remedies, e.g, dumping, subsidies, the role of the International Trade Commission, etc. It will also treat the provisions of the U.S. Generalized System of Preferences (GSP), the Caribbean Basin Initiative and the North American Free Trade Agreement covering such areas as excluded products, rules of origin, phase-in provisions for agricultural products and apparel and the side agreements on labor rights and environmental protection. Finally, there will be a review of U.S. expectations concerning the Free Trade Area of the Americas with respect to bilateral framework agreements and of the World Trade Organization regarding investor and intellectual property rights.

2. European Trade Policy

This workshop will address the current status of the European Community with emphasis on its common external trade policy (including phytosanitary standards), developing trends in the EC's Common Agricultural Policy, the outlook for the Lomé Convention and European response to the requirements of the WTO including the phasing out of the Multi-Fiber Agreement (MFA). The work shop will also present a brief overview of apparent trends in world markets for commodities such as sugar, edible oils, meat, poultry and basic grains.

3. Market Research and Data Analysis

This workshop will offer practical, hands on approaches to targeting and collecting trade and other economic data on specific product groupings or markets. Trade

data will be examined and analytical techniques explained. Data resource availability will be explored and market exploratory mechanisms discussed. The need to define market segments precisely and to disaggregate broad categories of export or import data will be emphasized. Emphasis will also be placed on measuring relative comparative advantage and analyzing product characteristics such as weight to value ratios, style considerations and durability.

4. Economic Modeling/Decision Support Systems

This workshop will focus on how to use computer modeling software to undertake "what if" scenario development in which certain policy instruments or economic indicators, e.g. the export price of sugar, are changed. The use of modeling to quantify prospective economic changes and the use of such models to develop position papers or briefing documents to assist policy makers to make decisions will be emphasized. Quantitative planning techniques which permit estimates of inputs or other changes needed to achieve a proposed goal, or, the alternative, extrapolating from current trends future requirements for resources, e.g. electric power or fossil fuels, will also be illustrated.

The workshops are expected to run from one to two weeks, depending upon the number of participants and the time the participants are expected to devote to studying and practicing the material.

XI PROPOSED WORK PLAN AND SCHEDULE FOR THE TRADE POLICY UNIT

The first step is to develop a strategic plan for the unit that is consistent and in harmony with the overall plan for the ministry as a whole. The strategic plan should contain a well articulated and focused mission statement that is publicly displayed throughout the unit. The plan should clearly state the goals and objectives of the TPU along with the actual processes that will be used for implementing an action plan and a methodology for outcomes measurement and assessment.

A. Months One to Four

The proposed work plan and schedule for the Trade Policy Unit envisages initially a two-phased approach. Phase one is the physical installation of the computers and related equipment followed by the installation of the software and the development of policy models. Concurrent with the installation of the system, will be a training program to assure that the unit's staff members have the technical understanding to operate at least their section of the overall system. This presumes that the staff selected already have basic computer skills and are experienced in word processing, spreadsheet use and the Windows 3.11/DOS 6.2 or Windows 95 operating systems. A training plan for that skill development and enhancement is outlined in the previous section.

Phase two, which should be undertaken in parallel with the installation and set-up phase, is a task for the Ministry's management, including the Director of the Trade Policy Unit. That task is the development of a strategic, or work, plan for Ministry of Trade, Tourism and Industry to utilize the capabilities of the TPU. The plan will take into account an assessment of the Ministry's commitments in terms of international negotiations, conferences, seminars, etc. which will lead to an inventory of information and analytical requirements tied to each prospective event. In form, this plan need not vary especially from the current annual work plans, but should contain more detail as to the agenda of each event which would permit the development of tailored information packets, specific analyses and briefing documents containing scenario analysis.

Considerable effort will be required for the physical preparation of the office space to be used, the installation of the computer workstations, the cabling and networking of the computers, the installation and testing of software as appropriate for each workstation and the installation and testing of modems and outside connectivity arrangements. This activity will require outside technical assistance, preferably from a BEEP project consultant.

Implementation of these, paired phases is anticipated to take approximately four months. During this period, all TPU staff members will be involved full time in the installation, training and familiarization with the system as a whole and with the individually assigned workstations. The Unit Director will also, as described above, be involved in developing the Ministry's overall work plan for the coming year. Completion

of this initial activity will leave the Trade Policy Unit in position to commence its work program.

B. Months Five to Twelve

Trade Policy Unit Director

As "manager" of the Trade Policy Unit, the Director is charged with developing and directing the task assignments for each of the unit's four analytical sections. These tasks will conform with the Ministry's overall work plan to the maximum extent feasible. They will be organized on a priority basis with the objective of generating useful work products as soon as possible. The Director also serves as the principle trade advisor to the Minister of Trade, Tourism and Industry and will be expected to develop a close working relationship with the minister in the development and implementation of trade policy. Principle policy instruments will be identified for incorporation into the models designed to provide information about policy impacts on sectors that are identified as important by the GOG.

Trade Policy Unit Analysts

For months five and six it is recommended that all the trade policy technical staff work jointly with support, at least for a portion of the time, by an outside consultant - to carry out simultaneously the following:

- a. Design, develop, and document the database file structures for the classification and retention of acquired data. The process will entail the assignment of responsibility for particular databases to specific analysts and will establish a system of passwords, anti-virus capability and other security measures as needed. They will also ensure that a regular (daily or weekly depending on the volume and frequency of data updates) file backup procedure is in place and maintain the backup media in a safe, secure and structured file system.
- b. Recovery, centralization and cataloguing of all library resources within the Ministry. Development and dissemination within the Ministry of a list of hard copy, software, CD-ROM and other library items. Development of a materials control system for the library.
- c. Establishment and testing of a communications link with the Bureau of Statistics. This task initially involves a connection by standard telephone line and 28.8 baud modem. Software on each end should be compatible and one (or both) of the computers should be running Windows NT which allows for a remote connection on a client server basis. Plans should also be developed at this time for a more sophisticated connection and other external connections.
- d. Selection of external data links and completing the necessary

arrangements - subscriptions, CD-ROM delivery, telephone links, etc. - and the initial acquisition of trade data and its entry into the system.

Inter-Agency Information Group

By month seven, and assuming that the data link with the Bureau of Statistics is functioning, the TPU Director should take the lead in establishing, at the technical level, an inter-ministerial committee charged with facilitating the transfer of relevant information within agencies of the GOG. This committee will seek to develop a continuing exchange of information of relevance to trade matters and trade policy between such organizations as the MOF, the Ministry of Agriculture, the Natural Resources Agency, the Ministry of Foreign Affairs and the Bank of Guyana and the Ministry of Trade, Tourism and Industry. Especial attention should be directed at bringing Guyana's overseas missions into the trade information network. This committee will be expected to meet as frequently as required to assure the effective flow of information. For the TPU, the Trade Policy Analyst - Domestic will provide the principle technical support to the Committee with support from the Director and other analysts as appropriate.

Information Users Committee

By month seven both access to international sources of trade data and the TPU's databases should be sufficiently organized to permit the TPU Director to establish a committee, principally of the private sector, to establish a framework whereby selected TPU data will be made available. Reporting formats and information transfer mechanisms should be developed. Membership should include the Institute of Private Enterprise Development (IPED) and the Private Sector Commission (and its Private Sector Centre), such PSC member groups as may have especial interest, e.g. the Tourism Association of Guyana, the Forest Products Association, the Guyanese Manufacturers Association, and the quasi-public sector institutions concerned with trade such as GO-INVEST, the Guyana Export Promotion Council and the New Guyana Marketing Corporation. For the TPU, the principal technical support to this Committee will come from the Trade Information Specialist, assisted by the Trade Policy Analyst - International and other technical staff as appropriate.

C. Months Seven to Twelve

Internal Product Development

- a. Develop trade briefs, position papers and presentations in response to information and research requests that support issues raised in trade policy contexts.
- b. Develop a preliminary model of the foreign trade situation facing Guyana that allows for ad hoc, "what if" scenario development.

External Product Development

- a. Both the domestic, international trade specialists along with the information specialist will establish the BBS system during this period. Selected items from the domestic and international trade databases will be available on the BBS in a summarized format. Initial information will include data on the history of a particular item and its current value with a corresponding percent change computed. The BBS will also contain selected trade documents and country studies pulled from other data sources, the NTDB and UNCTAD for example.
- b. Begin publication of a regular newsletter and fact sheet regarding the international trade sector of the Guyana economy. These publications should focus on summary information from the domestic trade database and contain tables, charts and graphs that depict import and export economic activity by product type, SITC and country codes over time.
- c. Develop a system for responding to trade information requests from private sector groups and other groups and agencies within the GOG.

Annual Report and Strategic Plan

At the end of the first year of operation the TPU Director will develop an annual report of the units activities and accomplishments related to the initial strategic plan of for the unit and deliver it to the Minister. The report should contain a critical analysis of the Unit's strengths and weaknesses and an operation plan for the next twelve month period should be developed for implementation. That report will contain insights gained from the first year of operation and should include some or all of the work plan items in the next sections. In addition, since the TPU is envisioned to be a dynamic working unit within MTTI, new items might be included and adjustments made based on the current and expected future operating environment.

D. Months Thirteen to Eighteen

Preparation and Dissemination of Trade Data Reports

Working jointly the trade policy analysts will:

- a. Develop additional publication and electronic dissemination formats for trade flow data based on Guyana statistics contained in the evolving databases. The published reports should document the composition of foreign trade statistics on a historic, current, and projected basis. Simple, yet visually appealing, time series charts and graphs should be developed for selected sectors. The projections should be based on simple time series models estimated with the historic data. The publication format should be "newsletter" oriented and distributed both physically and electronically. At some point during this period a subscription based cost recovery system should be evaluated and established if

warranted. Electronic dissemination should be developed using BBS and/or internet services.

b. Develop publications and electronic dissemination of trade flows based on foreign import statistics, and of world commodity trade for products of interest as outlined above in part a.

c. Perform classification, analysis and publication of "fact sheets" on relevant economic, social and political conditions in Guyana on a periodic (perhaps weekly or monthly), basis. These publications should incorporate indexes of activity in the various sectors of the Guyana economy. Development of a complete set of statistical indicators will provide the means for developing regular short term forecasts of the Guyana economy that can be used to supplement forecasts from more complex, behavioral, models that might be developed within the Ministry of Finance.

Economic and Statistical Modeling

a. Development of analytical capacity to perform ad hoc studies of specific issues as needed in support of Guyanese participation in trade negotiations and conferences. This task requires statistical and econometric modeling abilities. Unless a particular individual is recruited with macroeconomic and time series statistical modeling skills, the services of an outside consultant should be secured to develop the model specification and estimation. Once developed the procedure for updating and use, in a simulation context, can be documented so that the actual use of the model(s) for policy purposes can be performed within the TPU. Still, the services of a consultant on an "as needed" basis will be required unless the investment in human capital for the TPU is undertaken.

b. Development of an initial series of economic models directed at price and supply trends in commodities of particular interest and development, on a limited scale, of an input-output table useful for estimating the impact of foreign trade trends on Guyana's economy.

External and Internal Communication

a. Establishment and direction of a working group of private sector associations and firms to specify information requirements and to devise mechanisms for dissemination of such information.

b. Review external communication systems to ensure that full use is being made of available technology including internet connections and WAN development.

Perform Analysis of the TPU Computing Environment

a. Evaluate the network operation and perform an upgrade to either Windows NT or Novell 4.11 if warranted.

- b. Evaluate each hardware platform and ensure the required equipment is in place and functioning properly. Examine disk capacity and ensure that adequate storage capacity is in place. Evaluate current technology platforms and work requirements to determine if memory upgrades or new computers are justified.
- c. Evaluate software needs both from a new software perspective and upgrades of existing software if the additional features and functionality justify the expenditure to upgrade.
- d. Ensure that a regular personnel development plan is in place and that skill enhancing training is an ongoing and continuous process for all unit personnel.

E. Months Nineteen to Twenty-four

New Data Product Development

- a. Develop market demand and intelligence reports for selected non-traditional products such as wood furniture or specific fruits and vegetables of interest to Guyana's private sector.
- b. Continue work on the development of an input/output model of the Guyana economy for more refined policy analysis in the areas of trade and overall economic development.

Evaluation of Existing Databases and Information Products

Evaluate the database environment within the TPU and make plans for the development of new databases or the removal or transfer of existing ones depending on external and internal demand for information from MTTI.

Annual Report and Strategic Plan

At the end of the second year of operation the TPU Director will develop an annual report of the units activities and accomplishments. The report should contain a critical analysis of the Unit's strengths and weaknesses and an operation plan for the next twelve month period should be developed for implementation. That report will include a strategic plan that contains insights gained from two years of operation.

F. Work Plan Assignments by Position

The TPU work program set out above describes the roles of each of the technical staff members. For purposes of clarity, the roles are regrouped below by staff position.

Trade Policy Analyst- International

This analyst is tasked with establishing linkage with the external database services chosen for the TPU. The position manages all subscriptions to external databases and assures prompt receipt by the TPU of the subscribed data. The analyst is responsible for the design and continuous upgrading of the external information databases. He or she is also responsible for providing Guyana-specific trade and economic data for use by the external information services relevant to Guyana. The analyst is a member of the Information Users Committee. He or she works closely with the Trade Information Specialist to assure that the databases yield appropriate information in support of the dissemination process and also in support of the Economic Data Analyst in assuring availability of appropriate information..

Trade Policy Analyst- Domestic

This analyst is tasked with establishing linkage with internal, Guyana information sources such as the Bureau of Statistics. The analyst is responsible for the design and continuous upgrading of the internal information databases. The analyst is a member of the Inter-Agency Information Group. He or she works closely with the Trade Information Specialist in support of the dissemination process and also supports the Economic Data Analyst in assuring availability of appropriate information.

Trade Information Specialist

This specialist is responsible for the development of the specific information products, such as fact sheets, newsletters, charts and tables by which trade information is disseminated. It is not expected that the TPU will respond to general public inquiries but that it will provide the requisite information to those institutions that do, e.g. the GEPC, GO-INVEST, the Private Sector Centre, the University of Guyana, the GMC and selected private trade associations. Publications will require the utilization of the desktop publishing capacity of the TPU. The specialist will chair the Information Users Committee. Two assistants to the Specialist will be available to manage the flow of information within the GOG and with the private sector, respectively.

Economic Data Analyst

This analyst is responsible for the design and execution of economic and trade data analysis and modeling. He or she is expected to work closely with the TPU Director in determining the specific reports, analyses or models needed in connection with the policy requirements of the Minister or other members of Government in connection with trade negotiations, participation in international fora or internal policy development requirements. The Economic Data Analyst will have an assistant and will work closely with the Trade Policy Analysts to assure the availability of the most current and best quality data to be used in these analyses. This work will require familiarity with the

modeling software available to the Unit and the ability to upgrade and re-estimate in the light of new information.

Computer Systems Analyst

This analyst is responsible for the maintenance and administration of the networked computer environment within the TPU. This implies the ability to trouble shoot problems as they arise and to apply preventive maintenance to the systems, the power supply and the communication links. The analyst will also be responsible for installing software upgrades and assisting in the installation of new computers, peripherals and accessories as necessary.

ANNEX ONE

Project Formal Contact List

Private Sector

Mr. Gerry Gouveia, President, Tourism Association of Guyana, and Managing Director
Roraima Airways

Mrs. Roxanne Greenidge, Acting General Manager, New Guyana Marketing
Corporation

Mr. Yesu Persaud, Chairman, Institute of Private Enterprise Development, Demerara
Distillers

Mr. Raymond Roopnauth, Technical Specialist, Guyana Telephone & Telegraph Co.,
Ltd.

Ms. Pamela H. Landauer, Director, Special Projects, Guyana Telephone & Telegraph
Co., Ltd.

Mr. Manniram Prashad, Chairman, Private Sector Commission and President, The
Georgetown Chamber of Commerce and Industry

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ANNEX TWO

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