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THE INTERIM EVALUATION OF THE TECHNOLOGY INITIATIVE FOR THE PRIVATE SECTOR (TIPS) PROJECT

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By:

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This report represents the independent findings and recommendations of the evaluators. It does not necessarily represent official views of the Government of Sri Lanka or the Agency for International Development.

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LIST OF ACRONYMS

ABLE	American Business Linkage Enterprise
AID	Agency for International Development
AgEnt	Agro-Enterprise Project
ADB	Asian Development Bank
BOI	Board of Investment
DFCC	Development Finance Corporation of Ceylon
EC	European Community
EDB	Export Development Board
EI	Entrepreneurs International
FDI	Foreign Direct Investment
FOB	Freight on Board
GDP	Gross Domestic Product
GSL	Government of Sri Lanka
ICOR	Incremental Capital Output Ratio
IDP	Industrial Development Project
IESC	International Executive Service Corps
LC	Letter of Credit
LOP	Life of Project
Ltd	Limited Liability Company (Pvt: Non-traded stock)
MBS/ GEARS	Multiple Business Systems Global Evaluation and Reporting System
MD	Managing Director
MIS	Management Information System
MIST	Ministry of Industry, Science and Technology
NAV	Net Asset Valuation
NDB	National Development Bank
NFP	Not-for-Profit
NIBM	National Institute of Business Management
NIC	Newly Industrialized Country
PACD	Project Assistance Competition Date
R&D	Research and Development
RDLP	Research & Development Limited Partnership
Rs	Rupees
SLBDC	Sri Lanka Business Development Corporation
SLEDB	Sri Lanka Export Development Board (same as EDB)
SME	Small and Medium Enterprise
TA	Technical Assistance
TIPS	Technology Initiative for the Private Sector
TIS	Trade & Investment Services
TDF	Technology Development Fund
TTF	Technology Transfer Fund
UNDP	United Nations Development Project
VE	Volunteer Executive

PROJECT IDENTIFICATION DATA SHEET

1. **Country:** Sri Lanka

2. **Project Title:** Technology Initiative for the Private Sector (TIPS)

3. **Project Number:** 383-0108

4. **Project Dates:**

   a. First Project Agreement: Grant Agreement -- March 28, 1991
   Cooperative Agreement -- May 29, 1991

   b. Final Obligation Date: Planned -- December 31, 1996

   c. Project Assistance Completion Date (PACD): December 31, 1996

5. **Project Funding (obligated as of July 31, 1993):**

a.	A.I.D. Life of Project Funding:	$12,000,000
b.	Host Country, GSL, Contribution:	6,735,000
c.	Other sources:	-0-
	Total	$18,735,000

IESC/TIPS Component Funding (obligated as of July 31, 1993):

a.	Technology Promotional Program:	$ 4,000,000
b.	Technology Grants Program:	6,300,000
c.	IESC Technical Assistance Program:	1,200,000
d.	AID Project Evaluation and Costs:	500,000
	Total	$12,000,000

6. **Mode of Implementation:** International Executive Service Corps (IESC), Cooperative Agreement # 383-0108-A-00-1027.

7. **Project Designers:** USAID/Sri Lanka, the Government of Sri Lanka through the Ministry of Industries, Science and Technology (MIST), with initial project feasibility studies through the International Science and Technology Institute (ISTI).

8. **Responsible Mission Officials:**

   a. Mission Director: Richard M. Brown

   b. Project Officers: Jon D. Lindborg, Stephen J. Hadley, and Nissanka Weerasekera.

9. **Prior Evaluations:**

There have been no prior evaluations of TIPS since project inception, but two reports address issues that are related to this evaluation: First, "Study on Delivering Targeted Assistance to the Export Sector," for SLEDB, by Andrew Singer, March 6, 1992; second, "A Monitoring System for the Technology Initiative for the Private Sector (TIPS)," for USAID/Sri Lanka, by Ann Schwartz, January 1992.

1.0 EXECUTIVE SUMMARY

1.1 USAID Initiating Mission

The USAID Mission has developed a strategic framework for assisting Sri Lanka in realizing its vision, focusing on a single strategic goal: ***to expand opportunities through a new private-public partnership***. In order to achieve this strategic goal, USAID has implemented a portfolio of programs in Sri Lanka, but has designed and implemented the ***Technology Initiatives for the Private Sector (TIPS)*** project, complementing USAID's strategic plans through **1996**. TIPS locus of control is with the International Executive Service Corp (IESC), initiated May 29, 1991, Cooperative Agreement, #383-0108-A-00-1027.

The focus of TIPS is captured in its statement of purpose, written in the logical framework, and reads:

> ***To increase international competitiveness of and employment in Sri Lankan private industry improving its performance in choosing, acquiring and mastering technologies, with support from U.S. business and technology, and by facilitating removal of policy impediments.***

Within this framework, TIPS conducts promotional activities, technology subgrant allocations, and supports Sri Lanka's private sector initiatives to compete internationally, find new technologies, improve marketing efforts, and develop linkages with foreign interests for mutually beneficial ventures. The TIPS project is unique and has a broad mandate conceived by USAID in cooperation with the Government of Sri Lanka (GSL) to focus assistance intensely on private enterprise development, and in doing so, to respond effectively to client needs through integrated services. Demand for these services, however, far exceeded expectations, and after two years, the TIPS project was well ahead of schedule, with an exceptional number of achievements for a diversified clientele. This prompted USAID to initiate an interim evaluation to assess the project and the integrity of its activities.

1.2 Purpose of the Interim Evaluation

The Interim Evaluation was contracted to make a thorough analysis of TIPS activities and results to date. Because TIPS was accelerated in response to strong demand, the project surpassed its 1993 year-end projections by January 1993. Consequently, the evaluation team was asked to study alternatives for addressing excess demand, to verify the impact of TIPS activities, and to examine the project's component programs for cost-effectiveness and relevance. Also, the team was charged with evaluating the IESC Monitoring and Evaluation system as an assessment vehicle for the TIPS project. The data base monitoring system is under development in conjunction with TIPS as a data base instrument for project evaluation using consistent and measurable performance criteria.

1.3 Evaluation Methodology and Procedure

The team interviewed IESC and TIPS/US staff and managers, visited with USAID/Washington staff, and conducted comprehensive interviews with GSL and MIST officials in Sri Lanka. In addition, the team met extensively with the USAID/Sri Lanka staff, thoroughly interviewed TIPS staff, and made site visits, conducting in-depth interviews and gathering verifiable data when possible, with 20 TIPS clients. The client companies were selected from 11 industrial sectors, and were of various sizes with diversified grant activities. The sample was representative of TIPS clients, and TIPS files and follow-up reports were evaluated covering 48

firms plus eight Technical Assistance (VE) assignments. Also, four volunteer executives present in Sri Lanka were interviewed.

Reference materials, macroeconomic data, several proprietary government reports, and studies, background materials, notes, letters, and memos on the TIPS project, Sri Lanka, and USAID were studied thoroughly. Finally, five clients were selected from TIPS files who had been dropped from the program, withdrew, or refused assistance. They were interviewed toward the end of the evaluation as a control sample to check for possible oversights.

1.4 Overall Project Performance

The TIPS project has had ***excellent results*** in all component activities. In less than two years, June 1991 through March 1993, demand for assistance by qualified private sector clients culminated in more than $3.2 million in approved subgrants compared with budget projections of $2.4 million. Client grants were being approved at a rate of three per week versus three every two weeks. If that rate had continued, grant activities would have exhausted the 1993 budget of nearly $4.1 million by May. TIPS management and USAID officers recognized this trend in late 1992, and subsequently the Project Committee recommended changes to guidelines and the Cooperative Agreement which took effect February 1993. The effect of these changes has been to reduce the number of activities, award fewer grants in smaller increments, and to require larger client contributions. Quality performance, however, has not been affected, and demand remains strong.

TIPS visited 1,089 by July 1993, augmented by institutional promotional activities, feasibility reports, speaking engagements, and trade association visits. As a result, more than ***280 companies qualified for TIPS assistance***; 215 subsequently signed agreements, and there are ***205 active clients***. Well-planned promotional activities have been responsible for this success. TIPS participated in 58 promotional activities through industry and trade associations, TIPS managers were primary speakers at 26 formal engagements, and they conducted eight formal seminars or workshops on enterprise development and technology transfer.

Promotional and support activities by the TIPS/US office have been crucial to overall performance results. The U.S. staff prepares brief information reports on trade show and industry reconnaissance opportunities, coordinates market and technology research studies through the American Business Linkage Enterprise (ABLE) network, assists in searches for U.S. suppliers, equipment sources, and markets, and coordinates client visits to the U.S., including arrangements with the Entrepreneurs International (EI) program. The U.S. office was involved in 255 formal activities through March 1993, and provided informal assistance for both Sri Lankan and U.S. companies, acting as a linkage conduit. Through July 1993, TIPS/US had completed 128 subgrant activities, and 68 were in progress.

> **Overall, TIPS promotional activities have directly reached in excess of 5,600 individuals representing more than 3,800 Sri Lankan companies in at least 16 primary economic sectors, government, and public services. Through US support activities and correspondence, approximately 120 Sri Lankan clients and 230 U.S. principals have been mutually introduced.**

The real test of success, however, is ***total impact generated*** through these activities. ***Benefits compared to costs*** for trade show participation, industry visits, technology sourcing, market research, and subsidized consulting services have already resulted in more than a ***three-to-one ratio***. This ratio is based on verified sales, procurement records, and contracted services through mid-July 1993. It also represents only 30 percent of TIPS activities and excludes nearly $1.2 million in sales orders or procurement contracts that are currently pending. When completed, these current transactions alone will increase the benefit-cost comparison to a ***six-to-one ratio*** for those specific clients.

TIPS has been engaged primarily with activities for clients in Sri Lanka (69.5%) as opposed to external and travel-related activities noted above. These activities include grants for sourcing technology, upgrading processes, licensing new products, designing production lines, training, development of marketing materials, environmental and safety improvements, export marketing assistance, quality consulting, laboratory equipment purchases, and linkages for potential foreign collaborations. Results are captured in the following summary.

> **The composite results of TIPS project activities through July 15, 1993, culminated in nearly $120 million in new economic activity, at an assistance cost of $4.9 million. This represents only 48 clients with completed grants and one-year follow-up transactions of increased sales, purchases, production output, and expenditures for technological equipment and training. It does not include the effects of increased employment which have been substantial. If this activity is reduced to include only domestic and export sales, technology purchases, value-added output, and material imports, the benefit-cost ratio is eight-to-one.**

Based on mid-term results and specifically validated records for clients with completed activities, the TIPS project has had an extraordinary record of success. There is every reason to believe that current and future activities will be equally successful. The following is a summary of client benefits to date:

- **At minimum, a 45% increase in completed new sales.**
- **A 34% increase in domestic sales; at least 100% in export sales.**
- **At least a 67% increase in full-time employees.**
- **Approximately a 32% increase in net output value.**
- **Nearly a 10% increase in productivity which is understated.**
- **A three-fold increase in U.S. imports to Sri Lanka.**
- **Approximately an 87% increase in non-U.S. imports.**
- **A 200% increase in domestic purchases.**
- **A 100% increase in expenditures on technology and equipment.**
- **At minimum, a 55% increase in market research.**
- **Approximately a 90% increase in fixed assets.**

The TIPS project has been ***extremely successful*** and ***cost effective***. The immediate effects show that TIPS clients have enjoyed a ***composite growth rate of approximately 62%*** (ranging between 34% and 87% for first-year results), compared to the national growth rate of approximately 5.0% in 1992. ***More than 2,800 new full-time jobs were created*** in addition to a substantial increase in the number of contracted piece-rate workers. Although exponential growth is unrealistic in the long term, there is every reason to believe that ***client initiatives will be sustained*** through self determination and a dynamic market system.

1.5 Lessons Learned and Implications

Most lessons learned in this evaluation resulted from a profile of success by TIPS and its managers. Briefly, they are:

- An ***integrated project design*** is unique, making TIPS well-suited as a model for USAID and IESC assistance in private sector initiatives. However, it may not be adaptable for other donors that do not have an integrated business network similar to that of IESC.

- A successfully planned and implemented project is incomplete without an ***exit strategy*** that provides alternative long term scenarios or a way to withdraw, closing the project gracefully.

- A ***demand-driven*** approach works extremely well to "respond to" client needs rather than to presume what type of assistance is needed and then target assistance activities. Consequently, TIPS managers encourage clients to take the initiative and to present proposals. Assistance activities then are packaged to address client proposals.

- ***Non-targeted assistance*** avoids making predetermined political or economic assumptions about sector preferences or capabilities. This not only averts potential conflicts in the host country but reinforces client confidence in the project to address proposals impartially, awarding grants on merit and initiative.

- An enterprise development project can ensure rapid response and efficient services by maintaining ***distance in governance***. Although officials at USAID and MIST have been responsible in their governance roles, they have not become involved in operational decisions. This sets the project apart from any undue government influence and strengthens the credibility of a project with its clientele.

- Data required for measuring impact in a developing country is not easily obtained, nor is it consistently maintained by most companies. Therefore, project ***evaluation procedures*** and ***impact criteria*** should not be overly complex, and assistance for development of management accounting and control systems should be more strongly considered.

- Promoting the concepts of ***self-worth*** and ***self-determination*** is essential for success in private enterprise development. Behavioral changes fostered through a free enterprise system are fundamental to establishing a sustainable market economy. It is the collective psyche of a people that is the "engine of growth," not temporary comparative advantage or unusual strength of a particular economic sector.

1.6 Recommendations

Our primary recommendation is to reposition TIPS around either a not-for-profit or a for-profit organization. This will require project redesign, but to do so without sacrificing the unique qualities of TIPS or to weaken its mandate for private sector development. The improved design would be implemented as the next phase of assistance following successful completion of the current project. This does not preclude continuing the project with enhanced funding after making appropriate adjustments. Meanwhile, USAID should seek funding to support TIPS in its effort to meet accelerated demand through the end of 1996, earmarking funds for design development and new initiatives. If additional funding is infeasible, then the only option is to continue until existing funds are committed, servicing client activities while attempting to reposition TIPS. This implies a short-fall of funds relative to demand, and the consequences are either curtailment of activities or early termination of the project.

USAID and TIPS are faced with immediate strategic considerations to avoid facing a crisis situation in the near future. The immediate step is for USAID to organize a project redesign, perhaps in early 1994, while seeking enhanced project funding. However, there are near-term modifications to consider for improving project operations. These include redefining promotional objectives, making adjustments in packaging subgrant activities, and clarifying project management relationships. In addition, IESC should consider reconfiguring the monitoring and evaluation system with a universal platform of hardware and software. This will help reposition MBS/GEARS as a pervasive project evaluation instrument. More specific, but less important operational suggestions, are presented in the report as considerations. ***Without change or redesign, however, TIPS is a distinctive project, and it has achieved a remarkable success.***

2.0 ABSTRACT

The Technology Initiative for the Private Sector (TIPS) Project is a unique form of assistance directed toward private sector development. TIPS has accelerated its schedule, completing activities by early 1993 that were expected to be attained by the mid-term point, early 1994. The accelerated pace, however, has not meant a sacrifice in quality performance. To the contrary, demand by qualified Sri Lankan clients has outraced assistance allocations, and the performance record by TIPS is outstanding.

The report will show that total impact, measured by economic activity (domestic sales, imports, exports, technology transfer, employment, and productivity), compared to project allocations, is enormous: a positive ratio of more than 8-to-1. In addition, quality changes in both entrepreneurial zeal and technological knowledge have been remarkable. These conclusions are presented with measurable data based on an evaluation process that included reviews of client and project records, on-site studies, intense client interviews, and validation procedures such as inspection of original invoices, receipts, letters, and accounts.

Several critical lessons emerged from the study. Success is due to: Rapid response to private sector demand, supported by USAID and GSL, at a distance; client confidentiality; a "demand driven" mandate that avoids sector or industry targeting based on political or economic assumptions; commitment by clients who contribute to activities financially and take a keen interest cost-effective and beneficial results; and the integrated team approach by IESC ensuring in-country, U.S., and global networking. There are no major difficulties with the TIPS project, USAID sponsorship (which has been exceptional from design to operational support), GSL/MIST collaboration (which has been excellent), or IESC/US management.

There are, however, changes that must be addressed. TIPS should be repositioned in design and funding for the long term. The promotional component's primary function of establishing TIPS in Sri Lanka has served its purpose and now must realign. The monitoring and evaluation system must better address end-user needs and data management constraints. The grants component will need enhanced funding to fulfill the contract; if funding is not forthcoming, activities must be curtailed, or TIPS can continue as it has, but ending the project 12-to-18 months early. IESC must resolve TIPS and TA management responsibilities. Finally, the success of TIPS has underscored the need for USAID to design projects with clear "exit strategies" that include long-term scenarios for continuation or for withdrawing graciously from activities.

3.0 INTRODUCTION

3.1 USAID/Sri Lanka and IESC/TIPS Project

Sri Lanka entered the decade of the 1990s on tenuous political grounds with continuing civil unrest and a lackluster economy. However, the government set in motion new initiatives to move the country toward industrialization with the announcement of an industrial strategy in 1989, emphasizing a stable democracy and a vibrant private sector. In response, the USAID Mission has developed a strategic framework for assisting Sri Lanka in realizing its vision, focusing on a single strategic goal: ***to expand opportunities through a new private-public partnership***. In order to achieve this strategic goal, USAID has defined three objectives in its **FY 1992-1996** plan. These are to help create:

- an effective, dynamic market economy,
- a healthy environment and productive natural resource base,
- an active, pluralistic democracy.

The **Technology Initiative for the Private Sector (TIPS)** project is a USAID activity positioned to address the first objective, specifically to help Sri Lanka develop an ***effective and sustainable market economy***. Although TIPS was not designed to directly support either of the two remaining objectives, it has indirectly enhanced the democratic process through a nation strengthened by private enterprise and independent initiative, and by improving the country's technological profile, affecting both environmental infrastructure and resource utilization. The focus of TIPS is essentially captured in its statement of purpose, which is introduced here and addressed in Section 4. It reads:

> ***To increase international competitiveness of and employment in Sri Lankan private industry improving its performance in choosing, acquiring and mastering technologies, with support from U.S. business and technology, and by facilitating removal of policy impediments.***

Later in this evaluation report, it will be shown that this statement has been refined in response to U.S. assistance priorities and characteristics of an evolving Sri Lankan economy, yet the TIPS project design remains essentially intact. USAID/Sri Lanka provides overall governance without undue micro-managing, and the Government of Sri Lanka (GSL) together with private constituents provide guidance through the coordinating mechanism of an advisory board.

3.2 Macro-environment of Sri Lanka

Sri Lanka has set a course for rapid modernization, emphasizing private sector development. Since 1989, the country's economic performance has been steadily improving through macroeconomic policy reforms and a commitment to free markets from stifling regulations. Five reforms have had priority. They are:

Privatization. Beginning in 1989, the GSL sought to privatize a large number of its public enterprises, ranging from transportation to planation management. Of 60 public enterprises targeted for privatization, 25 had been restructured by the end of 1992 with two pending in early 1993. This was accomplished mainly through public share ownership and regrouping some public enterprises into small units capable of independent management.

Administrative reform. The GSL created an Administrative Reform Committee (ARC) in late 1988 to address a series of problems with public service administration. Considering that wages and salaries in the public sector

accounted for nearly 7% of GDP, and that a severe overstaffing problem existed, the ARC was charged with shifting public sector responsibilities to the private sector and reducing staff without undermining moral or the effectiveness of services. Some progress has been made with labor policies delegated to a Public Services Commission, introduction of incentive systems, and rigorous controls on new recruitment.

Banking reforms. The two state banks, Bank of Ceylon and People's Bank, are being restructured and commercialized. These banks account for over 60% of total banking sector deposits, yet the GSL has had to raise massive bonds to keep them operationally sound. Consequently, the banking Act of 1988 was passed to establish capital adequacy standards and accountability standards for all commercial banks. The GSL wants to reduce the burden of intermediation costs, overstaffing, and irrational lending-procedures.

Exchange liberalization. Exchange control measures began to be liberalized in late 1992 with the first significant changes occurring in early 1993. The surrender requirement for export earnings was abolished, and export earnings are no longer required to be brought into the country within six months. The GSL has begun to reduce import tariffs and has announced that it will abolish export duties in support of this liberalization strategy.

Agricultural franchising. A major restructuring has begun in state-owned plantations so that by early 1993, 449 estates had been regrouped into 22 regional enterprises and handed over to private companies for management. These are lease/management arrangements that the GSL is considering for change into investment-based quasi-private enterprise groups. The change is a move toward development of independent competitive organizations.

Changes in the macroeconomic environment are evident in these new policy directions, but also in the results of comprehensive efforts to alter fiscal and monetary guidelines to favor rapid development and a strong private sector capable of sustained growth. Between 1989 and 1993 (F/Y ending March 31), the average growth rate has been 5% per annum; this is below the desired rate of nearly 9%, but a healthy improvement over previous years. The annual inflation measured by the consumer price index has been reduced from 21% in 1990 to 11% in 1992; double digit inflation, however, remains a problem. The country has recorded a balance of payments surplus for the three-year period, and foreign reserves rose significantly; net foreign investment rose 87% between 1991 and 1992, yet FDI is a small segment of GDP (less than 9%). Domestic savings also increased to a rate of 15.3% in 1992 (12.7% in 1991), thus adding to capital accumulation. Unfortunately, the rate of monetary expansion (pegged after 1989) still expanded; M2 grew 16.6% and M1 increased 7.3% in 1992.

Tight monetary policies by the Central Bank and a commitment to control inflation by the GSL have had some effect, but there are contrasting problems. The treasury bill rate and prime lending rate exceeds 21%; commercial loan rates are between 23% and 28%. These conditions act to severely constrain private sector debt capacity even though capital formation is increasing. Leverage for private enterprise development is therefore restricted, which contradicts GSL policies for economic growth. The T-bill strategy may be necessary for funding public allocations, such as financing the deficit (nearly 10% in 1990, down to 7.4% in 1992), but high interest is stifling.

Perhaps more important for this evaluation, exports surged in 1992 by an increase of 19.6% over 1991, and although much of this was attributed to garment sales and tourism, manufacturing was a significant factor. The manufacturing sector grew through increased output by 9%, nearly double the rate for services; agriculture actually declined by 2.3%, partly as a result of a 1992 drought. Growth is the key to attaining economic goals for Sri Lanka, and the current government has announced aggressive plans to double per capital income by the year 2000 from the current average of about $540. The government also intends to

propel the country toward NIC status as a competitive nation in the South Asia region. The statistics, however, indicate a tremendous lag.

A recent study by the Institute of Policy Studies showed that in order for Sri Lanka to double per capita income by the year 2000, the annual growth rate should be at least 9.0%. This is far above the current rate of 5.4%. To achieve the 9.0% rate, the overall rate of investment would have to increase from the current 23% level to nearly 36% of GDP. That in itself would be a tremendous feat, but in addition, Sri Lanka would have to reduce the incremental capital output ratio (ICOR) from the current level of 4.8 to 4.0. (A high value for computed ICOR means capital is inefficiently employed resulting in slow growth, but a lower ICOR suggests greater efficiency of capital, thus a more rapid rate of growth.) In order to improve, then, Sri Lanka must raise its technological capabilities, making industry more efficient and its deployed capital more productive. Merely raising the savings rate to accumulate more capital does not affect real growth, although a sound capital base is essential for developing the infrastructure, technology, and skills necessary.

Closely associated with these economic considerations are the social and political necessities that mandate policy reforms and sustained growth. Sri Lanka faces tremendous unemployment, currently in 1993 about 15.3%, which is a rather conservative estimate because it does not account for "underemployment" common in most rural areas where piece-rate work, cottage industries, seasonal work, and subsistence employment prevails. It also does not account for "under productive" employment, which is a pattern in overstaffed public sector enterprises. The GSL also faces an immeasurable problem of solving poverty; the problem is known, not well defined, and only superficially addressed by transfer payments through social welfare programs. Solving employment problems and poverty would, by definition, mean that national growth and income must be increased. Consequently, these conditions coupled with monetary and fiscal reforms provide the framework in which we can address development policies.

3.3 GSL/MIST Development Policies

Development policies are being concentrated on private sector initiative with a strong emphasis on spearheading the country's exports. The 1990s have been declared "The Decade of Exports," and to support this, the GSL through the Ministry of Industry, Science and Technology (MIST) is setting in motion new policy mandates. As noted earlier, liberalization and privatization programs have become focused on manufacturing to stimulate investment and competition. To induce exports, they have also been associated with tax concessions, relaxed import/export rules and tariffs, and incentives, such as tax holidays, promoted through the Board of Investment (BOI), which qualifies companies for preferential status. These benefits are not systematic, however, and distortions occur to favor companies in certain sectors, those that can attract foreign investment, public enterprises managed as private companies, and the few that can illustrate substantial export activity. A majority of smaller domestic companies cannot benefit from the same concessions.

Meanwhile, the drive to attract higher rates of savings simply reduces consumption and raises the cost of living as higher costs are passed to consumers through higher prices. The government is therefore depending heavily on foreign investment to prop up the investment rate to try to maintain a floor level of growth without negative affects on employment. Huge donor programs from foreign interests are directed toward certain sectors, such as rural development, agriculture, and garment exports. In addition, assistance loans and grants are positioned to support technology initiatives. One of these is the Technology Transfer Fund (TTF) administered through the National Development Bank (NDB). A second fund, the Technology Development Fund (TDF), handled by the Development Finance Corporation of Ceylon (DFCC), is reportedly defunct. There are other smaller funds, but gaining access to them seems to be a persistent problem, and

the funds have been under-utilized and directed toward companies often capable of demonstrating that they are "bankable" in the first place, not necessarily to those most in need of operating capital or technology financing.

The government is trying to enhance skill levels through initiatives in education to be implemented through private enterprise. For example, the GSL is contemplating a Skill Development Fund similar to the program in Singapore to introduce government sponsored programs in private sector technology. Also, the National Institute of Business Management (NIBM) is involved in designing a program for technical and vocational skills development.

Tax reform is also important to help stimulate productivity and to reduce domestic and export prices. Specifically, the tax base is being broadened through various use and luxury taxes, but the corporate and income tax rates have moderated to maximum levels of 45% and 35% respectively with further reductions expected. The Turnover Tax has been revised and GSL expects to replace it with a Value Added Tax system in 1994. With respect to trade, non-tariff barriers are being reduced and ad valorem tariffs are being converted to specific rates, thus making trade transactions more equitable and less costly. Export duties may be eliminated within two years.

The significance of these policies regarding TIPS presents a somewhat complicated scenario. The TIPS project itself is viewed as one smaller but very effective system for technology development. More important, its design has the capability of reducing ICOR (improving efficiency of capital through enhanced technology transfer), and of raising national income (by improving skills, employment, and export activity). Consequently, TIPS has favorable notoriety, yet it is small relative to the country's needs, and to have a major effect, people working at MIST suggest that it must be 10-15 times larger in its scope and funding; influential executives at NDB, DFCC, and the Central Bank suggest that TIPS could be expanded by a factor of about 100. Nevertheless, it is viewed as an important catalyst in the overall structure of development initiatives.

From the viewpoint of the private sector, the government's policies, tax treatments, and BOI incentive promotions often seem contradictory to stated public objectives of developing an unfettered free market economy. Treasury bill rates are high and attract capital that could be used in enterprise development, yet the government urges greater risk taking and capital investment by the private sector. Although taxes have been reduced and certain tariffs and duties are liberalized, for most companies in the domestic economy, these serve to distort competition and are viewed as efforts to create a "managed economy," not a market system.

Development funds such as the TTF are available, but banking procedures are so complicated as to discourage application, and, as many TIPS clients relate, the fund allocations are sparse and restricted. A crucial question, of course, is why a bank would administer grant funds that produce no profit while it must strive to place its own funds in productive projects. From the client viewpoint, the question also arises why government pushes short term measures such as trying to employ people in labor intensive industries or promoting industries (garments) that can only survive as long as the country has a comparative advantage in labor costs. At the same time, government pursues rapid growth in per capita income and skills development, but both reduce labor cost advantages. National incentives may therefore work at cross purposes, and technology is less-well supported.

It is within this framework of evolving policies and initiatives that TIPS is being evaluated, and it is within the development framework of the country that TIPS must address its future objectives and activities. USAID and other foreign-based donors must gain an understanding of how these policies can be enhanced by their efforts, and most important, how they can position assistance programs to avoid stop-gap political mandates while addressing the sustainability of economic improvements in Sri Lanka.

4.0 TIPS PROJECT AND ACTIVITIES

4.1 Background Description of TIPS Project

The concept of TIPS began to take form in 1989 through various studies and proposals within USAID/Sri Lanka. Initially, its proponents sought to establish an assistance program for technology transfer, creating a vibrant private sector, yet one that would address nearly all sectors of the Sri Lankan economy. At the time, agriculture was considered to have the greatest potential for rapid growth, and assistance proposals were concerned with increasing productivity in that sector. This focus was shared by other donor agencies and the government of Sri Lanka, which was anxious to privatize agricultural, textile, and garment firms. The GSL also began to introduce new incentives for these industries, such as tax holidays and reduced import tariffs on selected machinery and materials. Within this broad range of interests, TIPS was envisioned as an assistance vehicle that would be administered under a branch of GSL with government support and, perhaps, bilateral donor involvement.

By December 1990 when the formal TIPS Project Paper was written, several important refinements had been made, and these have made TIPS unique as an assistance vehicle. First, TIPS was established to be managed entirely separate from GSL involvement. Second, USAID emphasized at the outset that the TIPS team would have the flexibility to assist private sector clients independent of donor involvement in activity related decisions. Third, TIPS was designed to avoid focusing on agriculture or any particular sector, excluding only those activities ineligible under U.S. law and USAID rules. And fourth, TIPS activities would be ***demand driven***, implying that client selection would not be subject to particular criteria such as size of organization, growth or sales potential, asset base, or similar characteristics. However, "demand driven" was expressed in terms of a client's commitment to embrace changes initiated with TIPS help by sharing risks through a percentage of matching funds with TIPS grants.

These refinements culminated in a well-defined TIPS project with a focused goal: ***to generate economic growth and employment by developing and sustaining Sri Lanka's market economy***. In addition, two major guidelines emerged for assistance intervention activities:

- Recognizing that many clients may not understand their needs or the type of assistance needed, the TIPS staff would be expected to help diagnose client needs and plan technological upgrading properly.

- Although clients may envision the benefits of technology change or TIPS services, they may need sufficient incentives through TIPS grants to overcome suspicion or reluctance to participate.

The TIPS Project purpose, focal goal, and general guidelines are documented in the **Project Paper**, and, as noted earlier, the **Project Authorization** defines the maximum funding level and planned life of the project. USAID solidified the project around the capabilities of IESC for implementing a four-component design approach in Sri Lanka. The four components, briefly described, are:

1. ***Technology Promotion Program***. TIPS will be aggressive in stimulating demand for technological change on the part of clients, thus establishing in their minds the need for improvement, resulting in higher productivity.

2. ***Technology Grants Program***. TIPS will provide incentives, lowering costs for clients, to search for, select, and implement new technologies within guidelines for activities eligible for subsidies.

3. ***Technical Assistance (IESC/VE) Program.*** TIPS will provide IESC Volunteer Executives capable of specific technical assistance as a complement to the other components of the project.

4. ***Assistance for Policy Reform.*** As a component separate from the cooperative agreement, this will be a form of assistance to the GSL for policy reforms that can affect the business environment of private enterprise development in Sri Lanka.

USAID sought to establish clear mandates through the **Project Paper** with detailed expectations for implementing the four components, but within the paper itself, subtle selection of words or phrases subsequently became very important considerations. Specifically, a conclusive statement on the project design and its components noted that TIPS would "....finance a broad spectrum of activities to help managers and entrepreneurs in export industries to articulate their technology needs, appraise the payoffs of better technology and devote more resources to technology upgrading and management." The emphasis on ***export*** has consequently resulted in restrictions on TIPS activities away from clients who cannot demonstrate imminent export potential. This narrowing of eligibility occurred in early 1993 as TIPS activities outraced its funding allocations, but the restriction was not emphasized at the project's inception.

Details of the project's background and evolution are found in initiating documents, agreements, and memoranda referenced. The current TIPS strategy, its activities, and objectives are addressed in the following sections.

4.2 TIPS Strategic Framework and Objectives

In essence, the thrust of TIPS is to improve international competitiveness of Sri Lanka's private sector through technology transfer. As a U.S. assistance program, it can achieve this goal best with support from U.S. businesses, and by influencing changes using U.S. technology. Consequently, the TIPS strategic framework is consistent with USAID assistance strategies and is congruent with U.S. foreign policy aimed at enhancing opportunities for U.S. companies in foreign markets as well as helping nations to become self-reliant, democratic societies through market-driven economies.

Conceptually, TIPS is designed as a ***catalyst of change***, and its activities include help in planning for changes, organizing resources needed to implement changes, improvement in management leadership to direct changes, and control systems essential for sustained efforts and growth. As a catalyst, TIPS is not meant to be an on-going provider of assistance, but it is meant to initiate activities that can help clients overcome barriers to change and motivate them to take bolder steps toward sustained growth and self reliance.

This assistance role also suggests that TIPS should reach as many clients as possible to incubate changes, support their efforts to ensure sustainability, then set them on a course free of assistance. TIPS has established three major objectives to fulfill this strategy. Briefly summarized, they are:

1. To generate demand for technology improvements by private firms, helping them to diagnose their needs, to plan their efforts, and to formulate their requests for assistance.

2. To provide cost-sharing grants to help offset the financial burden of searching for technologies and resources that clients can pursue, either through acquisitions or linkages, thus stimulating technology transfer.

3. To provide information on, support for, or access to the international business community for new technology or markets to help clients achieve higher productivity and growth.

These objectives carry several underpinning assumptions. It is understood that TIPS is best suited to provide a bridge to U.S. business interests, but not restrained from finding "appropriate" technology, new markets, or access to information without regard for political boundaries. Of course, this is also tempered by U.S. foreign policy and laws that require TIPS to operate within certain boundaries. Another important assumption has been that TIPS will pursue these objectives by bringing together Sri Lankan and U.S. interests for potential formal linkages such as joint ventures, co-ventures, licensing of technology, and contracts regarding production or marketing.

In addition, there is the assumption that TIPS will be able to provide an exceptional network of U.S. business interests through its IESC organization. This is enhanced by having a rapid-access conduit for assistance through the TIPS/US team at IESC/Stamford headquarters. It is also important to note that in the project paper and the enabling cooperative agreement, there is no presumption of targeting clients with specific export capabilities, although now there is such an understanding among USAID, MIST, and TIPS. Consequently, until recently, TIPS pursued objectives to assist with planning, grants, and productivity improvements whether clients were positioned in export or domestic markets.

4.3 TIPS Project Activities

Subsequent sections of this report will describe activities within each project component, but an introductory description of the types of activities TIPS pursues may be valuable. All activities are formulated to effect a transfer of technology, thus ultimately to improve productivity in private enterprise companies that comprise TIPS clients.

The prominent means of technology transfer is to acquire equipment that can improve a firm's productive capabilities. Equipment, however, is only hardware, and a company also needs the "soft side" of technology, the process methods and knowledge necessary to implement a meaningful system. Consequently, TIPS has been involved in activities that not only help clients source equipment, but assist them in acquiring associated process methods, skills, and knowledge. These include site visits to companies outside Sri Lanka with appropriate equipment that might be acquired (i.e., reconnaissance visits), visits to industry trade shows where new equipment and processes are showcased, and the introduction of clients to companies that may be interested in some form of joint venture or contractual arrangement that provides access to technology. Also, TIPS grants can be used to bring to Sri Lanka consultants who can provide expert knowledge required to implement technology systems; when possible, TIPS assists in locating consultants in Sri Lanka and then supporting client initiatives. In addition, TIPS provides technical assistance through the IESC volunteer executive program. Each of these activities has an implicit training dimension as clients are introduced to new methods, equipment, and information sources. Training is also effected through TIPS-sponsored seminars in Sri Lanka and workshops in the U.S. designed around trade shows and industry visits.

Activities are preceded by ***brief information reports*** for most TIPS clients. These help define the kind of assistance needed and the feasibility of client requests. For example, reports were prepared on preliminary searches for U.S. companies interested in selling equipment used in making candy, processing commercial inks, and manufacturing light bulbs. These searches were done through the TIPS/US staff with help from IESC's network of VEs and business contacts, without obligation or cost to the clients. Each of these culminated in approved grants for well-defined activities.

The candy manufacturer and key production staff visited several British manufacturers which led to the acquisition of improved production equipment, then was assisted by a British consultant for redesigning the candy factory system. These activities have been supplemented by acquisition of tool-and-die designs

for candy production, skills training through hired (TIPS subsidized) consulting, and a grant for acquiring laboratory testing equipment for quality assurance and food safety standards.

A brief information report on commercial ink production recommended that the client take part in the ***Entrepreneurs International*** program, touring U.S. ink manufacturers and commercial printing companies. A TIPS grant assisted the client in this endeavor, then helped identify equipment which the client purchased to increase production capacity and quality. Subsequent activities under the grant included help with a marketing program, developing a company promotional catalog and presentation materials, introduction to potential export markets through a trade show, and training in export management.

The report on electric light bulbs discouraged the client from trying to buy sophisticated production equipment, but helped inform him about feasible alternatives, quality standards, and testing equipment appropriate for a small company with limited markets and resources. As a result, TIPS helped the client source *appropriate* technology, acquire testing equipment, and contract a local consultant for software development. A U.S. supplier was also found through TIPS/US staff who provided several production items to enhance output and reduce manufacturing costs.

These examples illustrate the mainstream activities designed to address both hard and soft technology transfer, and to provide the follow-up assistance to help ensure sustainability. TIPS also provides substantial assistance for improving client marketing systems, introducing clients to export markets, and establishing linkages between U.S. and Sri Lankan companies for buying or selling products, supplies, or services. Types of activities include participation in U.S. trade shows, market planning services, repositioning of products to meet export standards, development of promotional materials, and consulting related to price-cost issues, product development, quality assurance, packaging, and distribution. TIPS utilizes direct grants for marketing trips, ABLE reports, and group trade exhibitions to locate U.S. markets, identify candidates for joint ventures or product distribution, and introduce Sri Lankan clients to products that constitute their competition.

Innovations in marketing are encouraged by TIPS, such as helping clients to create promotional video tapes, redesigning products for higher-value-added segmentation, and developing packaging for foreign clients. Several examples are illustrative. A fashion jewelry manufacturer created a colorful catalog for a few products selected to market through mail order, and a video presentation to help negotiate contracts with airline duty free agents. As a result, the manufacturer landed contracts with Air Lanka and Emirates, and doubled its previous year's sales through catalog orders. In another example, an entrepreneur making hand-crafted wooden toys developed a catalog and gift packaging that attracted a large U.S. buyer, subsequently positioning the toys in mail order markets and gift catalogs. In a third example, a manufacturer of graphite was linked with a major U.S. manufacturer of lead pencils who helped redesign the client's product and improve product quality, resulting in subcontracted orders for value-added finished pencils and art-graphite pastels. This linkage was established through an ABLE study originally intended to search for U.S. joint venture candidates who might be interested in foreign investment in Sri Lanka.

These activities are not inclusive, but they represent the major thrust of TIPS efforts to date. There have been subsidiary activities, such as assisting a client in developing an energy saving solar-power system to provide steam pressure for a tire retreading operation, and helping the graphite manufacturer source a new kiln system that reduced rejects threefold and increased output capacity more than eightfold. Several clients have become aware of management information systems (MIS) options and new administrative systems to track transactions or to provide database management controls. Several other clients have been assisted with maintenance systems to reduce costs, reduce environmental

waste, or increase safety. In many instances, clients have become aware of financing methods, learned how to write proposals or loan applications, and deal with complications of exporting, such as foreign exchange, using letters of credit (LCs), and contracting with foreign interests.

In every instance, TIPS assistance activities are "demand driven," thus initiated by client interests and proposals, not instigated by TIPS. This process is closely followed, yet there is an element of reasonable guidance; the sample of clients evaluated and files reviewed suggest that in most instances TIPS tried to address client requests with only guarded advice. This avoids the question of whether activities reflect TIPS, U.S., or GSL interests imposed on clients through lucrative grant incentives. In effect, the vast majority of activities appear to reflect client priorities and needs. However, this also begs the question of how far TIPS should go to intercede, thus helping clients to better focus their requests and to pursue the most appropriate grant activities. In several instances, clients interviewed during the evaluation suggested that TIPS could have been more proactive in advising about activities and potential assistance. In hindsight, several TIPS managers indicated that assistance might have improved by better assessment of client needs prior to approving grants, although TIPS does attempt to help without imposing on clients.

With these points in mind, TIPS activities have been substantially demand driven and diversified. They represent a wide range of interests among a broad spectrum of clients, and, in general, they have addressed the three specific TIPS objectives. Nearly all activities can be explained in terms of technology transfer, including marketing efforts that improve client knowledge about competition, introduce them to new products, and assist them with new marketing techniques. Grants for trade fair trips, support for administrative and MIS systems, assistance with maintenance and safety which helps reduce costs, and advice on management and organization which increase efficiency all influence the hard- and soft-side technology profile.In subsequent sections of this report, details of component activities will be provided to amplify these points, and both quantitative and qualitative results will be evaluated to provide a complete picture of the TIPS project.

4.4 Project Organization and Responsibilities

An organizational diagram in the appendix illustrates how IESC, TIPS/US, and TIPS/Sri Lanka positions are structured. The essential point is that IESC is the organization with core funding for mainstream support, and it is responsible for implementing the TIPS project through a separate cooperative agreement expiring December 31, 1996. TIPS/US staff report through the TIPS Project Officer to the IESC Regional Vice President for Asia. TIPS/Sri Lanka staff managers report through the TIPS Chief Executive Officer to the IESC Regional Vice President for Asia. The TIPS/US office subsequently acts in a parallel support function, maintaining administrative coordination and liaison for US/VE, ABLE, and Entrepreneurs International activities.

The only complication is responsibility for the IESC Technical Assistance program which has existed in Sri Lanka since 1983. USAID and IESC have agreed to keep the TA program independent of TIPS ensuring its continuity and independence. The IESC/TA program, however, has been repositioned under TIPS as a project component. Although this arrangement has worked well, and funding and activity decisions are separated, there has been some discomfort among staff in Sri Lanka. The IESC/TA senior director is under TIPS but, in reality, fulfills the role of an IESC Country Director, thus remaining at arms length from TIPS operational activities; TIPS managers are not involved in TA activities. Consequently, IESC Technical Assistance is not an integrated component of TIPS, and volunteer executive (VE) activities, data management, and accountability are partitioned. The future of TIPS and IESC/TA in Sri Lanka are independent considerations.

5.0 TECHNOLOGY PROMOTION PROGRAM

5.1 Technology Promotion Program Activities

The role of the TIPS Promotional Unit has been to stimulate demand among Sri Lankan firms for technology change and TIPS grants by aggressively promoting TIPS services. From project inception, June 1991, until January 1993, TIPS pursued activities to fulfill this mandate. Results were excellent, but exceeded expectations with more than $3.2 million sub-grants approved through the end of 1992, compared with budgeted projections of $2.4 million. Client grants were being approved at a rate of three per week versus three every two weeks. If that rate had continued, and funding had been committed, grant activities would have exhausted the 1993 projections of nearly $4.1 million by May. Consequently, the USAID Project Committee, in consultation with TIPS staff and MIST counterparts, recommended new guidelines and changes to rules outlined in the Cooperative Agreement with IESC. These took effect February 18, 1993, when USAID, with agreement by the Secretary of the Ministry of Industries, Science and Technology, and the CEO of TIPS instituted the new guidelines.

The changes have meant a reduction in TIPS activities, awarding fewer subgrants, in smaller increments, and requiring larger contributions by clients. These are discussed in Section 6.0 under the Technology Grants Program. In terms of promotional activities, the changes meant an abrupt reversal; TIPS would not aggressively promote its services or stimulate demand for technology change, particularly among new clients, nor would the staff encourage subsequent grant activity by existing clients. Because TIPS had a high profile, well-entrenched in Sri Lanka, and had strong public and private sector advocates, it was felt that demand would continue to outrace allocations. Consequently, curtailment of promotional activities would not threaten the success of TIPS in the near term.

5.1.1 Specific Activities

The ***Project Activity Report*** for the period ended March 31, 1993, provides itemized activities for all components with cumulative results, budgets, and grant allocations. These data are available separate from this report, but we have used this data, and supplemented it through updates during the July 1993 evaluation. A summary of promotional activities follows:

New Company Visits. TIPS reported 967 new client visits through March 31, updated to 1,033 by July 23. These represent private enterprises. In addition, TIPS conducted three institutional visits concerning eligible assistance early in the project. This succeeded in qualifying more than 250 companies for TIPS assistance; 215 subsequently signed grant agreements. Ten of those clients were discontinued by July 1993 for a total of 205 clients.

Industry and Trade Association Visits. TIPS participated in 58 activities through Sri Lankan industry and trade associations. In most instances, these were visits initiated by TIPS to present the project concept and to solicit clients; in several instances, TIPS responded to invitations. In nearly all visits, TIPS brought to the associations a program based on informing participants about technology transfer and the importance of productivity improvement.

Public Speaking Engagements. Lorne Olsen, CEO/TIPS, was the primary speaker at 23 invited engagements through March 31, with three additional appearances at functions through July 1993. Invariably, he spoke on TIPS, but in addition, he and his staff promoted the concept of free enterprise and a market economy, thus reaching a wide constituency with the message that GSL and USAID have congruent goals for rapid development of private enterprise in Sri Lanka.

Promotional Seminars and Workshops. Through July 1993, TIPS conducted a total of eight formal seminars or workshops on private enterprise development and technology transfer. Approximately 110 client companies participated in these activities which were designed for sector-specific work. For example, seven Sri Lankan companies in the rubber industry were represented in Akron Ohio, for an educational program on rubber technology, process equipment, and new production techniques. In another instance, a jewelry consultant was brought to Sri Lanka who addressed nearly 40 participants in several seminars on jewelry marketing, casting techniques, export production requirements, and process equipment. Similar programs were developed, in Sri Lanka and in the U.S., in the toy, food, and packaging industries.

Trade Show Attendance. In conjunction with client grants to attend trade shows in the U.S., TIPS has been involved in promotional activities by sending managers to U.S. trade fairs and industry visits together with clients, and also to work with TIPS/US staff, helping clients schedule site visits in the U.S., meet with U.S. suppliers or potential customers, and assist clients in their promotional efforts. TIPS reported six activities in this regard prior to March 31, but has had staff attend two additional events in June 1993. These are formal activities with reportable budget lines, but staff have also been involved in several domestic trade shows and have assisted clients in promotional activities on an informal basis.

Newsletters and Program Publicity. TIPS prepared a newsletter early in the project, and although it was well received, it was discontinued. More specific program publicity was pursued, reported in March 1993 as 31 activities, such as short in-company consulting seminars for employees, articles by TIPS published by local media, brochures on TIPS created for project information, brief studies conducted and circulated by TIPS on client successes, and so on.

Multiple Company Diagnostics. TIPS has conducted four multiple company diagnostic studies which are short-term studies by experts contracted to address particular problems that apply to all clients within an industry group. These have been conducted in rubber, gemstone, food, and packaging industries.

Client Information Reports & Linkages. Perhaps the most important set of promotional activities include the various brief information reports, follow-up reviews, and efforts made by TIPS staff here and in the U.S. to establish linkages between Sri Lankan and U.S. firms. Brief information reports, as noted earlier, are conducted by TIPS/SL and US support staff as feasibility studies to help the client formulate assistance; they also assist in evaluating eligibility and whether TIPS is the appropriate vehicle for assistance. The brief reports, together with US support studies, IESC network linkages, assist in searches for U.S. suppliers, equipment sources, market research, distribution systems, and information on trade shows, seminars, industry visits and other activities that may assist clients. Through March 1993, TIPS reported 255 activities, although 6 of these were canceled and 25 put on hold pending further action. Several initiatives may be dropped for lack of client interest, and TIPS has subsequently selected out 14 more. Between March and July 1993, several brief information reports have begun, and there are approximately 68 in progress at various stages. A total of 128 formal activities have been completed through July 1993.

5.1.2 American Business Linkage Enterprise (ABLE)

ABLE is a program of IESC/US, separate from TIPS, geared to linking foreign and U.S. companies and technologies through comprehensive market research or industry search activities. ABLE also provides assistance with U.S. sourcing, brochure development, and financial research. TIPS has reported three activities under ABLE as related to the promotional program. These were concerned with marketing research and production of a marketing brochure, but ABLE has completed 13 major marketing studies under the total project umbrella with 11 more pending completion; two are on hold as of July 1993. ABLE services are important to the

overall promotional effort, and reported as separate activities. They also carry separate budgeting, but they are intertwined with TIPS/US and the grants program activities, sometimes establishing the strategic connections necessary for TIPS to successfully pursue grant activities.

5.2 Results of Promotion Efforts

Quantitative results using monitoring system criteria are difficult to identify specifically with the promotional program. Aggregate growth in sales, employment, investment, and profits generally cannot be isolated as component results. There are isolated instances to illustrate, however, **impact** will be addressed for the entire TIPS project. The more important points to make here concern the qualitative results of the promotional program.

Through company visits, seminars, industry and trade association visits, and public speaking engagements, ***TIPS has directly reached approximately 5,600 individuals representing about 3,800 Sri Lankan companies in at least 16 primary economic sectors, government, and public services.*** The indirect fallout of these meetings and media activities are unknown, but there is a qualitative dimension that cannot be ignored. In every instance, TIPS has brought to the event the messages of free enterprise, market economics, and independent initiative. In most instances, TIPS has pursued the theme of technology transfer and enhanced participant awareness of international competitiveness. TIPS has been a medium for reinforcing the strategic thrust of USAID in Sri Lanka, and for supporting the GSL policy objectives of rapid (and meaningful) private sector development to bring Sri Lanka into regional contention as a dynamic economy.

Trade show participation, multiple company diagnostics, and workshops have been directed to client interests, but they constitute group endeavors with more descriptive than quantitative results. Informal assistance and participant by TIPS in trade shows cannot be measured, but four clients interviewed during the evaluation who were recipients of this support had enthusiastic praise for both TIPS/SL and TIPS/US. In one case, a company director and an employee were put in touch with several equipment manufacturers in the U.S., and they were able to speak informally to VEs and several business associates. In another instance, a group of clients were assisted in setting up promotional booths, presenting their products, meeting with prospective customers, and arranging for correspondence through TIPS for following up initial contacts. Another who was robbed of his passport, money, and all credentials while in New York was rapidly assisted by TIPS to put everything back in order and conclude the program. Yet another had a great deal of help and advice in connection with yacht shows both in Sri Lanka and the U.S., and subsequently reported making more than a hundred new contacts for potential sales as well as opening negotiations on a joint venture.

The primary consideration for evaluating promotional activities rests with the overall demand for TIPS services. Requests for assistance exceeded initial projections threefold, and the number of eligible clients with approved grants were nearly double at 257 companies. Ultimately, 787 grant initiatives were packaged for 215 clients through March 31, 1993. As of July 23, 1993, the numbers were slightly reduced by dropping several inactive clients, and the withdrawal of requests by others. ***Subsequently, 205 clients representing 715 approved grant packages remained active with assistance by TIPS committed for $3.2 million.***

Comments by clients during the evaluation confirmed a very high level of satisfaction with TIPS and a keen awareness of TIPS activities, concepts, and rationale. Based on client responses and file notes, only about two percent of all requests for assistance came through referrals from sources such as the development banks, Chambers of Commerce, TIPS Advisory Board, or MIST officials. Approximately 95 percent of all clients applied to TIPS directly after attending a seminar, workshop, or public speaking engagement. The remaining two or three percent found out about TIPS through contacts with TIPS managers or business

associates who had become involved with the project. Consequently, the breadth of the promotional activities seems to have paid off, each activity contributing to the total program development. Just as important, the evaluation interviews confirmed that the vast majority of clients came to TIPS motivated to seek technology change, open new markets, or pursue international ventures; they did not come for stop-gap handouts. The implication is that TIPS structured its promotions in such a way to trigger client interest in self development, not to stimulate demand through unrealistic expectations for financial support.

Of course, many individuals did approach TIPS with unrealistic expectations about what TIPS might be able to do for them. The evaluation team interviewed four companies turned away from TIPS and spoke with five other company directors who had approved grants but for various reasons did not pursue them. In terms of promotional activities, the responses were not negative. There was no indication that TIPS had oversold assistance and presented biased information. There was, however, an indication that misunderstandings could arise because TIPS cannot address client needs in certain sectors such as garments, nor can TIPS provide direct support for procurement of production equipment and machinery.

5.3 Discussion and Implications

Promotional Unit activities during the first 18 months of the project have been keenly focused on fulfilling the initial mandate. Everyone associated with TIPS, including USAID officers and Sri Lankan advocates have supported the project objectives. There has been a rather wide geographic interest, stretching from the north central region to the south coastal region with as much activity in urban as in rural endeavors. Colombo and its surrounding suburbs have had a proportionately higher number of clients, but this would be expected of a project aimed at industrial assistance. This may intensify as TIPS focuses more on export-related organizations because exporters need to be in proximity to the infrastructure of ports and communications.

The role of the promotional unit has, however, changed, and performance expectations should be revised for the reminder of the project's life. It is no longer vital to emphasize the presence of TIPS or to promote its role as a catalyst of private sector development. What is important is to bring to clients constructive information on global technology, create access to foreign sources of information technology, and to establish a sustainable network of private enterprise development efforts in Sri Lanka. Consequently, promotional efforts could be redirected toward building up local networks, establishing data sources such as industry trade journals, newsletters, and briefs for clients, and arranging educational seminars for skills training, financing, business planning, export development, and other similar topics.

These are a few suggestions only to prompt management to reposition its promotional efforts, and it is essential to keep a reasonably strong profile for TIPS as an assistance project. With less time spent on actually promoting TIPS, staff can reallocate time to interests such as publishing a newsletter for TIPS clientele. This could address policy initiatives, new technology innovations, donor-sponsored activities, and marketing issues. Together, this information could be extremely helpful to any reader, and many clients interviewed during the evaluation seemed isolated and less-well-informed than they should be about Sri Lanka's development programs, foreign assistance, and practical issues such as how to write proposals, apply for loans or grants, or contact consultants for professional help in production, administration, accounting, system controls, safety standards, or quality assurance. Redefining promotional efforts could address these points and help weave the fabric of local business networking crucial to a competitive free enterprise system.

6.0 TECHNOLOGY GRANTS PROGRAM

6.1 Technology Grants Program Activities

As noted earlier, grants have been approved from inception through March 1993 at a rate of three per week, double the projected figure in the initial plan. Also noted earlier and documented in appendices, there has been more than three times the projected requests for grant assistance. The number of sub-grants activities approved through July 23, 1993, were 787 for 215 clients, trimmed to 715 activities and 205 active clients. TIPS grant program activities were not constrained to export-orientated companies until February 1993, and client contributions to grant activities were one-third of total costs.

These criteria have changed, requiring TIPS to focus on companies that can demonstrate export capability and that will contribute half of activity costs. In addition, the original period of 12 months for grant completion was reinstated (altered to 18 months during the early phase). After TIPS dropped inactive clients and adjusted grants, the March 1993 approved allocation stood at about $3.2 million (prior to consolidation it was $3.8 million); and disbursements were approximately $1.2 million, up slightly by July to about $1.6 million.

In addition, TIPS initially addressed company needs in agriculture. In early 1993, a new project similar to the TIPS design was initiated by USAID to focus on agribusiness development. It is called the Agro-Enterprise (AgEnt) Project, and TIPS now refers agribusiness clients to AgEnt. TIPS has also systematically avoided direct involvement in the garment and textile industries. Consequently, TIPS grant activities have been focused on the industrial private sector which is characterized by light manufacturing and engineering. Early project activities encompassed some agricultural interests and what may be construed as services, such as software development. TIPS has not been involved with either institutional or policy initiatives, nor has it assisted public sector organizations other than limited support provided to the Ministry of Industries, Science and Technology (MIST).

With the possibility of budget cuts at USAID level and the rapid early allocation of TIPS funds, recommendations described under promotional activities were implemented in 1993. This was an effort to slow down, not halt, activities, and USAID has been able to provide additional funding for 1993 of approximately $2.5 million in April and $1.0 million in July 1993. Some form of rationing TIPS grants is implied by the slow down, even with the additional funding that can only support the initial rate of new grants (3 every two weeks) packaged for each client to approximate $20,000. To date, TIPS has nearly doubled the rate, but the packaged activities resulted in average grant size of about $20,100.

The range of grants are itemized in the appendices, but in general, they represent 28 different types of activities for clients in 24 sectors; 22 types of activities in 11 sectors constitute nearly 90 percent of approved grants since inception through March 1993. The largest block of activities approved were in consultancy services (19.8%), followed by test marketing (17.8%), training (16.4%), and trade fair attendance (15.7%). These four types of grant activities represented 70 percent of total approved grants. With respect to completed activities, trade fair attendance was largest (33.1%), followed by sourcing of suppliers and markets (12.3%), test marketing (12.3%), and training (11.4%). These four activities represent nearly 70 percent of completed activities and approximately half of grant disbursements.

Statistics on approved and completed activities can appear to be slightly out of balance with a heavy emphasis on grants for trips because trade fairs,

sourcing, industry visits in the U.S., and test marketing all involve substantial travel grants for Sri Lankan clients. Training also has a significant travel cost component, and consultancy activities have travel to the U.S. as well as travel to Sri Lanka by U.S. experts. The nature of client demand and the process of technology transfer, however, are consistent with an emphasis on international travel and personal linkages.

The evaluation team is not concerned with an imbalance in the activities, although three GSL government officials have drawn attention to this issue. They are particularly concerned about trade fair attendance as nearly a third of existing activities, asking how this type of assistance perpetuates technology transfer or enhances productivity. In general, the answer is that linkages for sales, equipment sourcing, knowledge of technology, access to export markets, and connections for potential collaborations have been achieved through participation in these activities.

Another dimension to consider is the distribution of clients by industry. The largest number of grants have gone to clients in the food industry (14.7%), followed by rubber/plastics (13.5%), light manufacturing (12.0%), and jewelry manufacture (10.8%). These four groups represent 51 percent of total grants, which is not out of balance with the segments that TIPS can address in the domestic economy. Sri Lanka is strong in food products, particularly those packaged for potential exports such as tea and spices, strong in gemstones with ample opportunities for rapid growth in the jewelry sector, and replete with raw materials for improving the fabrication of value added rubber and plastic products. Each of these have substantial needs for productivity improvement assistance through technology transfer activities. Each also needs substantial help with marketing and sourcing.

In light manufacturing, the types of products and processes vary widely from hand-crafted toys to electronic switching devices. Assessing activities is therefore a case-by-case process. The evaluation team visited five companies in light manufacturing and reviewed files on four others to determine the types of activities TIPS approved. In every instance, there was a distinct change in the company's technological profile, an improvement in productivity, an increase in employment, and an increase in sales. In four situations, linkages were made for possible joint ventures or marketing contracts. To illustrate, a change in kiln technology at a graphite pencil company resulted in U.S. sales contracts, an eightfold increase in finished goods output at reduced unit costs, and improved quality. In another example, an electronics firm was able to identify new production technology on a U.S. industry visit, arrange to purchase machinery, and license new product designs, thus doubling its sales and more than doubling its employment. Similar profiles emerged for the other clients.

Grant activities also addressed clients in printing, paint processing, computer software, coconut products, packaging, furniture, ceramics, granite and flooring, gifts, glassware, ornamental fish, toys, and environmental assistance to textiles. Nine other firms represented clients in unclassified categories, such as fish nets and decorative candles. The evaluation team visited a total of twenty companies, sampling representative clients for about 78 percent of TIPS types of activities.

The evaluation found that in every instance, assistance addressed one or more of the primary objectives of TIPS with packaged activities that embraced at least three essential client needs: 1) technology information and sourcing; 2) market access; and 3) productivity improvement. In subsidiary activities, a wide variety of client needs were addressed based on their grant proposals and included: 1) new product design or licensing; 2) training for new technology or processes; 3) quality improvement laboratory equipment and methods; 4) market research for exporting; 5) introduction to U.S. companies for possible co-venture or joint venture linkages; and 6) pollution control.

6.2 Results of Grants Program Efforts

There are four sources of information to evaluate results of the grants program. The first is data presented in the latest activity report (March 31, 1993), supplemented by four sector activity reports generated for the evaluation on July 16, 1993. The second is a compilation of TIPS project statistics on measurable criteria generated July 23, 1993, for this evaluation. The third is data collected by the evaluation team from company visits. And the fourth is qualitative information. Because grants are packages of services that include promotional activities, specific technology grant activities as outlined above, U.S. assistance through the IESC support group, ABLE studies, and TA services, it is difficult to attribute results to only one component of TIPS. Therefore ***impact*** will be treated under the TIPS project summary in Section 10, but results from evaluation sources will be described here.

6.2.1 Activity Report & Sector Summaries

In 1991-92, TIPS worked with 11 companies in the plastics industry and 18 companies in the rubber industry, providing a total of 101 subgrant activities plus two technical assistance (VE) contracts. Seven companies from each sector attended industry trade shows and participated in industry site visits and U.S. seminars related to technology. A formal educational program was prepared in the U.S. for clients in plastics, and a separate multi-company diagnostics study with subsequent in-country consulting was organized for clients in the rubber sector. As a result, four of the plastics companies acquired R&D or production equipment, and two contracted consultants for employee training as of July 1993; three ABLE reports have helped companies identify potential buyers or open communications for a co-venture agreement for manufacturing plastic vacuum components in Sri Lanka for export to the United States.

The costs associated with these trade & industry visits were approximately $48,000, and subsequent consulting services and ABLE reports were about $24,000. Specific value of direct-linkage transactions including equipment orders, initial prototypes, and contracted consulting was estimated at $79,000 through July 1993.

In the packaging industry, TIPS assisted 16 companies with a multi-company trade program, four technical assistance (VE) contracts, two U.S. industry trade shows, one ABLE report, and U.S. consulting in Sri Lanka under contract. While in the U.S. 12 of the clients attended TIPS/US-sponsored seminars on packaging methods and processes technologies, and all visited one or more U.S. companies. Costs associated with these specific activities were estimated at $48,000 plus $8,000 allocated through TIPS/US support. Direct linkages from these activities were estimated at $121,000 in new equipment sales or process licensing, and materials and consulting of $115,000 through early July 1993.

TIPS assisted eight toy manufacturers to exhibit at the New York Toy Fair in February 1993. Through TIPS/SL and the US support unit, 61 activities have been conducted including preparation of brochures and catalogs, marketing items for the trade fair, prototypes and shipping, mass mailing in the U.S., a seminar on marketing in the U.S., and subsequent follow-up in Sri Lanka for exporting and equipment sourcing. Costs associated with the trade show and marketing were estimated at $32,000 for travel and seminars plus $24,000 for activity services. The toy companies sold directly at the fair or took orders for $25,000, and as of July 1993, have verified additional orders of approximately $60,000. No new equipment has yet been purchased, but a U.S. importer has visited Sri Lanka, and a direct mail mass merchandiser is currently in the process of consolidating a container load of selected wood-crafted items from six clients with a confirmed LC of $107,000, FOB late August.

In the food industry sector, TIPS has been involved in five trade fairs and exhibitions since 1991, the latest in New York, June 1993. Six companies were exhibitors in June, and 22 companies have participated in one or more of the

fairs or were beneficiaries of one or more of approximately 93 activities. These have included marketing reports, equipment sourcing, value-added food processing methods, tea packaging and branding, biscuit exports, spice processing, and consulting for employee training, quality assurance, and process technology utilization. The costs and value of results are difficult to separate in this instance because of multiple grant packaging and on-going activities by TIPS with most of the clients. At least three companies have purchased equipment from Europe, and one has fabricated tea mixing and packaging equipment using Sri Lankan sources. Two companies have shipped orders following the recent trade fair, and all six sold their entire stocks while in New York. A spice company has more than doubled production since his 1992 introduction to external markets, and through TIPS-assisted catalog and mail order marketing programs has contracted in Europe for approximately $125,000 in orders.

TIPS has assisted 16 gemstone and jewelry companies through three trade show exhibitions, technical assistance, equipment sourcing, contacts with U.S. parties interested in collaborations, and consulting. While in the U.S., clients also attended marketing seminars designed for them through TIPS/US with US/VE support, and there was an initial industry consulting study prepared in 1991 followed by a second survey study on jewelry skills, methods of casting and production, equipment utilization, and various means to become competitive in the jewelry markets. Many of the 127 activities associated with grants for the jewelry sector concerned marketing, such as production of catalogs, brochures, video tapes, and displays. Specific grants helped source testing and production equipment, and several training programs were initiated. TIPS also conducted a mailing to over 2,000 U.S. buyers prior to the 1993 exhibition. As of July 1993, TIPS reported 15 completed business linkages for export sales and equipment purchases, transactions that amounted to $425,000. Total costs for activities completed to that date since inception approximate $220,000.

6.2.2 Project Statistics

Data for the entire TIPS program is not consistently available for all companies, but summaries of firms that had up-to-date and complete information were assembled for this evaluation. This data is a basis for evaluating ***impact*** and will be addressed in that regard later. The results are for 48 companies with base year statistics in 1990 or 1991, and comparable one-year data as of July 23, 1993, following TIPS assistance. Although not a statistically qualified sample, these firms represent eleven industrial sectors with diversified interests, and based on sales volume, they reflect a broad selection of TIPS clients. Lacking information on all clients or summary data that could be used to validate the 48-firm group as representative, we can only suggest that the diversity based on sales volume indicates that the group may provide a reasonable basis for study. Expressed in rupees for annual sales in the base year, two firms recorded less than 1.0 million; 17 between 1.0 and 10.0 million; 15 above 10.0 million but no more than 50.0 million; seven above 50.0 million but no more than 100.0 million; and seven in excess of 100.0 million.

In terms of ***net productive output*** in current rupees, the clients reported a 32 percent increase, up from the base year of Rs 1.8 million to one-year results of Rs 2.4 million. Unfortunately, this does not capture several of the companies who had tremendous output gains, such as a pencil manufacturer with nearly 120 percent, a microelectronics assembly plant with 140 percent, or a jewelry exporter with more than 200 percent. Nor does it capture entrepreneurial efforts such as a company that processes scented and herbal teas for export with more than US$120,000 in current orders and no notable output in the base year.

Reported ***employment changes*** for the 48 firms was a 67 percent increase, up from 4,202 to 7,012 after one year. The number of production workers increased by 91 percent, administration by 10 percent, and managerial by 30 percent. Male employees gained by 115 percent, and female employees gained by 58 percent. Although we cannot refine the data better without comprehensive feedback from

most, if not all, companies, the evaluation team sought to validate these changes by sampling the companies interviewed. Twelve of the clients were not included in the 48-firm report. Nevertheless, in all but one instance, the clients had increased employment significantly, ranging from 25 percent to nearly 200 percent. The data may be slightly biased upward by substantial gains made in several manufacturing companies and new entrepreneurial ventures, but the effects of increased output and sales implies real and notable employment gains.

Client ***sales*** for the 48 firms showed a 45 percent increase; ***domestic sales*** increased 34 percent, and ***export sales*** increased by 102 percent. Actual total sales were Rs 2,905 million, up from Rs 2,001 million. Domestic sales were Rs 2,235 million, up from Rs 1,669 million. Export sales reached Rs 670 million, up from Rs 332 million.

One measure of linkage is the change in ***procurement for raw materials and supplies***. This increased for the sample by 150 percent. Imports from the U.S. were up 322 percent from Rs 52 million to Rs 220 million, and imports from non U.S. sources increased 87 percent, from Rs 397 million to Rs 744 million. Thus total imports increased 115 percent, and the net increase was valued at Rs 515 million. This was significant, but more than matched by a 202 percent increase in domestic purchases valued at Rs 608 million.

Productivity is measured through the TIPS tracking system to conform to local practices of contrasting total output value to cost of bought-in goods that comprise material purchases, electricity costs, and fuel costs. Labor factors are not included, which seems unusual, but explained as difficult to trace due to the common practice of using cottage workers, piece-rate part-time labor, and irregular subcontracting which, together, can account for more than a third of the total work performed by many of the clients. Using data from the system on materials, electric, and fuel purchases, these costs taken together increased by Rs 481 million (procurement increased as noted above; electricity increased by 30%, most attributed to price level changes while usage increased only slightly; and fuel usage and costs fell by 6 percent). Compared to output, the ***net value added*** was Rs 93 million, or about 9 percent.

Net fixed assets for the 48 firms increased by 93 percent. Expressed in current rupees at cost, they were up from Rs 824 million to Rs 1,592 million. Perhaps as much as 40 percent of this is represented by real estate value, and the remainder is primarily attributed to machinery, thus providing an indicator of technology improvement. A complementary measure may be ***expenditure of market research*** which increased by 55 percent, up from Rs 1.6 million to Rs 2.4 million in the same period. An additional indicator is ***in-house training*** which reflected training consulting provided through TIPS and independently hired for plant employees. This increased by 106 percent, from Rs 2.5 million to Rs 5.3 million. There was a slight shift as expenditures on external training decreased by 7 percent, from Rs 3.5 million to Rs 3.3 million.

The composite financial structure of the 48 companies changed dramatically from the base year to the end of year-one. Each category of current and fixed assets improved together with balancing liabilities, illustrating a general and pronounced change in production, sales, and investment. The telling figures are ***net changes in capital formation*** and ***investments***, two accounts that indicate by their balances whether the clients were financially stronger as a result of their commercial endeavors. ***Net capital formation***, booked values over costs, improved by Rs 48 million, or 16 percent, and ***net new investments*** increased by Rs 113 million, or 89 percent. Financial composites also indicate probably changes in costs, assuming that clients followed similar patterns of inventory stocking and turnover in the base and current years. An indicator may be calculated by the relative difference in current assets and current liabilities. The ***net change in current assets*** was Rs 3,869 million versus current liabilities of Rs 3,527 million, for a net improvement of Rs 341 million, or 154 percent.

It is important to note that composite financial data do not provide a clear picture of cost savings or reflect changes in profits. These are not captured by the data as company cost accounting practices are often rudimentary; some companies are addressing this problem with assistance for MIS development, product costing methods, and improved purchasing systems. In addition, the data is expressed in current terms, not real terms which would be difficult to compute because base years vary between 1990 and 1992 depending on when applications were processed. Consequently, the data indicate a general direction of change which is positive (but strong), suggesting lower costs at greater output levels and higher total sales. These result in significant improvements in capital formation and investment. Even if adjusted in real terms, the magnitude of results might be diluted only slightly by price effects. Profits at least mirrored these results, and if erroneous, would be understated by companies to minimize taxes.

6.2.3 Evaluation Team Data

Data collection was not a primary concern while visiting clients, but an attempt was made to ascertain changes that may have occurred in conjunction with TIPS activities. The team questioned changes in sales, employment, expenditures on new technology (production machinery, product designs, new processes, and laboratory equipment), and expenditures on training (methods, skills, and marketing). Only one company had been previously reported for prior year results in the 48-firm selection; all others had only partial data or had not yet been subject to follow-up evaluation by TIPS. Of the 20 firms visited, 14 had on-going TIPS activities, 12 had been involved in technology purchases since January 1993, and 15 had been (or currently are) engaged in training with local consulting support. Three firms were involved in marketing research or prototype development where changes in sales or employment were not relevant. Therefore, the evaluation data seldom represents a full year's increment or completed grant activities. U.S. dollar values are used as cost and contribution information was supplied in dollars consistent with grant allocations.

Of the 20 companies, 15 reported ***increased sales*** that totalled US $1.396 million. This represented an average increase of 87 percent over annualized sales prior to TIPS involvement, but the percentage increase was "actual", not annualized, and in two instances reflects results since June. The largest rate of increase was for a company in decorative stone exports which recorded a 400% increase ($120,000) in the four months ending July 1993. The entrepreneur who processes specialty teas for export registered a 300% increase ($80,000) between June 25 and August 3rd, 1993. The lowest change was positive at 3% in sales for a six-month period, reported by a cable fabricating company where a prototype electrical device was only in the test marketing stage.

Employment levels increased by 650 full-time persons among 13 of the 20 firms. Three clients offered no specific data, and a granite mining company had a reduction from 13 to 10 employees. On average, this represented a 67% increase in employment over baseline performance. The granite mining company's reduction reflects a current lack of quarrying activity, although the company had a sales increase with one test-market order to a U.S. buyer interested in a coventure that did not materialize. Missing from this 67% increase, however, is a huge increase in piece-rate and "cottage" contract workers. Data does not exist for these workers, but two companies each had more than a 200% increase.

Technology purchases for machinery, test and lab equipment, new product designs, and process methods totalled $736,000 following TIPS interventions and through July 1993. Grant approvals and estimates for future equipment purchases would add approximately $600,000 to that total if the clients follow through with planned technology expansion. Without baseline data on prior expenditures (many had not made new technology purchases in the prior year), there is no way to estimate a percentage increase. Of the 20 firms, 17 had implemented new technology through machinery, equipment, or process improvements.

Fifteen of the clients indicated they had made ***direct investments in training*** related to upgrading employee skills or by being involved as principals in training seminars in Sri Lanka and abroad. They reported expenditures of $128,000 associated with TIPS activities and on-site consulting services.

The evaluation team attempted to validate this data through output reports provided on each company by TIPS, but in most instances, follow-up studies had not yet been accomplished. Nevertheless, the information supplied by clients is consistent with grant cost estimates and planned technology expenditures through July 1993. The direction and intensity of changes in sales, employment, transfer of technology, and training strongly support the TIPS project reports and the data presented for the 48 clients with completed activities and comparable results. In addition, the companies visited by the team pointed out considerable cost savings through improved processes and better quality control. Several had interesting solutions to energy problems, such as using new solar-powered steam generators and switching to gas-fed kiln operations.

6.2.4 Qualitative Information

During the evaluation visits, clients were extremely pleased with TIPS assistance. Nine reported that they expected to establish links with U.S. buyers or manufacturers, providing either technology through investment and buy back agreements, or providing markets through distribution agreements. TIPS reported on several of these clients and others not interviewed, but many collaborative agreements are in the making and unrecorded as clients pursue leads (or U.S. companies contact Sri Lankan clients). These are occurring in toys, food and spice companies, graphite products, and jewelry merchandising. Preliminary orders by interested U.S. parties constitute current sales for one toy manufacturer, a ceramics firm, a spice exporter, and two jewelers. These results cannot be objectively measured, but they are part of the success profile noted by the team. Also, administrative improvements and controls cannot be measured, but there were 54 activities registered as complete and 23 in process concerning management issues such as assistance for MIS, market planning, ABLE export studies, and locally hired consulting for training or systems development.

6.3 Discussion and Implications

The Technology Grants component is the core of TIPS, but it has succeeded only through an integrated approach encompassing subgrant proposals in Sri Lanka, the U.S. support office, IESC's unique global network of business connections, IESC's core grant support, the cooperation of Sri Lanka's MIST and strong local advocates, and the coordination of USAID/Sri Lanka. One unusual feature of TIPS is that it has been allowed to function apart from local government intervention as well as apart from micro-management by USAID. TIPS has been given flexibility to behave as a private endeavor in partnership with clientele, and it has been supported in its assurance for client confidentiality, independence of grant approvals, and methods of assistance thereby avoiding bureaucratic entanglements and problems such as unnecessary delays in application processing, cumbersome procedures, and complicated staffing.

Efforts by other organizations to replicate TIPS based only on Technology Grants would be tenuous without a similar profile of integrated systems. This will be further addressed at the end of the report, but it is a vital point to stress in terms of drawing conclusions about the impact and sustainability of grant activities. With that said, the grants processed have addressed intended objectives as a catalyst for technology development through linkages that open access to global technology, markets, knowledge, and potential investments. Any improvements to the grants component would be a matter of degree; more funding for more activities of a similar nature with greater outreach to a broader spectrum of Sri Lanka's aspiring entrepreneurs and industrialists.

7.0 IESC TECHNICAL ASSISTANCE PROGRAM

7.1 Technical Assistance Program Activities

The Technical Assistance (TA) program is included under the Cooperative Agreement as a TIPS component, however it is not integrated into the project. The TA component is a separate function of IESC that has had an active presence in Sri Lanka since 1983 under current USAID authority, with a history that stretches further back under a previous mandate. Currently, it is positioned under the TIPS CEO and headed by a Country Director who is a senior director. Nevertheless, the IESC/TA program is funded and regarded as independent of TIPS.

7.1.1 Background of IESC/TA in Sri Lanka

IESC has had a consistent record of success under the TA program, serving more than 150 companies in Sri Lanka with short-term assistance using volunteer executives to work directly with clients for up to three months. Since January 1992, the TA component has been under the umbrella of TIPS as a complementary component, and through July 1993, has been directly involved in helping to promote the success of TIPS in Sri Lanka while providing vital linkages for TIPS clients through the IESC network.

Volunteer executives have worked on 38 TA assignments in Sri Lanka during that period. Of those, 34 were independent of TIPS, serving clients other than those generated under the TIPS project. TA activities through July 1993 have been purposely associated with four clients as part of the total assistance rendered, but three additional companies became TIPS clients who had previously benefitted from TA activities. There are currently eight projects awaiting recruitment; two are also TIPS clients. Regarding TIPS, we are concerned with nine TA activities, but we will address the TA program since January 1992. In all cases, funding of technical assistance has been distinct from TIPS activities.

7.1.2 Assistance Framework

Technical assistance activities are one-on-one assignments of VEs who are jointly funded through IESC and the clients for addressing a particular client problem specified under a contracted work plan. The nature of TA activities range from strategic reorganization to solving a specific technical problem such as reformulation of a latex rubber compound. VEs have worked in Sri Lanka to help set up production processes, assist in product development, introduce preventive maintenance programs, train employees in quality control, solve poultry bacteria breeding problems, write marketing plans, formulate feasibility studies, advise on strategic planning, pursue foreign liaisons, and assist in new technology. The list is not comprehensive, but it illustrates the breadth of activities.

In addition, the strength of IESC has been its network of more than 12,000 volunteer executives and its broad business connections in the U.S. and the more than 50 countries in which IESC has programs. Consequently, the TA program often reaches beyond the scope of formal work plans to establish linkages for clients. Often contacts are made through the VEs which have resulted in procurement of technology, new exports, consulting assistance, and formal collaborations. IESC utilizes its U.S. database of contacts to help VEs, and through ABLE generates client-funded reports on sourcing or marketing research.

Within this general framework, IESC/TA has operated in conjunction with TIPS to leverage its presence in Sri Lanka. In the cases noted, VEs have been brought in to provide the expertise needed to address various client's requests for assistance. Although subsidized through the TA component, these activities

are structured in parallel to, not as part of, TIPS activities. Thus, IESC/TA responsibilities and reporting procedures are at arms length from TIPS, and impact is a separate issue for each component.

7.2 Results of Technical Assistance

Results are tracked separately from the TIPS data base using traditional IESC Technical Assistance evaluation criteria. The TA program is essentially administered through paper-bound file systems and personal control by the Country Director. This involves procedural filing of contracted work plans, initial meetings with VEs and clients, recording memoranda on performance expectations, and conducting exit evaluations with sampled follow-up using a checklist. A client resource file is established with profile information such as sales estimates, employment levels, and brief financial data. Exit evaluations are descriptive, and six-month reviews sample approximately one-third of completed activities. Results are qualitative, establishing only yes/no answers to questions such as whether TA intervention had improved profits or increased employment. Consequently, the results addressed here are not subject to statistical analysis. Activities are summarized since January 1992.

7.2.1 IESC/TA Program Results

Between January 1992 and July 1993, there have been 38 "starts" and 23 "completions." The starts include those fully scheduled and approved, but of those, eight are awaiting VE recruitment. The country director anticipates some cancellations based on historic data and current recruitment problems, and has therefore estimated that a total of 34 assignments will be completed by the end of 1993; 17 were completed in 1992. Six had been completed by July 1, 1993. As noted earlier, several starts in 1992 were accepted in 1991.

During the 1992/93 period, there were seven cancellations. One activity was canceled by the client without explanation, one canceled by a client due to financial difficulty, and five canceled due to recruiting problems. Client requests for volunteer assistants with specific technical skills coupled with a preferred time frame for intervention has made recruitment difficult in several cases. In addition, some work plans proposed by clients are complicated, often requiring unusual VE talents. This seems to be the scenario for recruiting delays forcing eight activities to be put on hold.

Of the 23 projects completed, post-project reviews have been recorded for eight companies in accordance with IESC guidelines. Results and **impact** are described in Table 18 (Appendix A) for assessment criteria with "yes or no" responses and opportunities for commentary. Six or seven clients consistently reported improvements in financial, marketing, and operational results; some criteria did not apply to every client. If this sample accurately portrays TA assistance, then the response suggests very good program results.

TA Clients were also asked to make an overall rating (outstanding, good, fair, or poor), and provide a brief comment on results. One client gave a rating of outstanding, but commented that financial results were poor because of rising material costs. Another client rated the activity outstanding and commented extensively on cost reductions, sales increases, new exports, and better products. This client also requested TIPS assistance and subsequently had TIPS assistance with quality testing, R&D, and export marketing, resulting in the "Lanka Star Award" for excellence in export packaging in 1993.

Two clients rated TA activities as "good" but gave no comments. They also checked off "no" to several key items such as financial profitability, sales, increased exports, and increased employment. A third "good" rating supported implementation by the VE, but indicated little change in employment or production methods which contradicted recommendations. Two clients gave no judgment rating;

one commented that it had not begun to implement recommendations even though the VE was correct and the project was successful. The final reply was blank, with the comment that most items were not relevant due to client decisions.

These evaluation points and comments are provided here to illustrate what is at hand for evaluation and to provide USAID with some sense of how restricted it is to rely on the traditional methods of measuring impact. First, it is very difficult to pull the data together and requires hand-sorting of client records, and second, a reader is left with judgments and impressions, not verifiable information in a useful format. Of course, there are no benchmarks for measuring impact, and there are no validation methods for defining the items (e.g., what constitutes quality improvement or strengthened business ties).

The evaluation team concluded that IESC/TA activities have been successful, meeting contracted work plans in most instances, and providing effective recommendations that, if implemented, would have considerable effect on client organizations. This conclusion is judgmental, but it is based on reviews of 11 case work plans, eight evaluation follow-up reports, four client interviews, four VE interviews, and scrutiny of two comprehensive files. Among these cases and interviews, we were confronted with only one disgruntled client and one indignant VE, suggesting potential problems with two assignments.

In the first instance, the VE for an large integrated company, one of Sri Lanka's major firms with diversified holdings, complained that such a company should not warrant USAID-subsidies. The VE was critical about using U.S. taxpayers' money to help a firm more than capable of paying for consultants and technology. We are in sympathy with this position, and the managing director was asked about this. He replied that "size and capability of a company has not been an issue, and IESC has never indicated a selection process based on these issues." He also said that the company's board of directors were reluctant to hire consultants because they had had poor results in the past. Nevertheless, the client is capable of paying for these services. It is also true that the company has consistently implemented VE recommendations with good results.

In the second instance, the managing director of a multi-division company rated the technical assistance activity as a total disaster. He berating the VE as uncooperative and making useless recommendations. In contrast, the VE rated his work as outstanding, and felt the activity was a complete success. Several key top managers were interviewed by the evaluation team, and the entire file was reviewed with both the VE and the country director. Our assessment is that the VE did perform well, completing the work plan and making good recommendations. Unfortunately, he accepted an assignment that was far too broad in scope with vague expectations. It is also our opinion that the client may have used the de facto U.S. assistance to leverage support for his firm with local creditors.

7.2.2 TA Activities Related to TIPS

Two of the nine clients that benefitted from TIPS and IESC/TA activities were among the companies selected for evaluation and site visits. Both also had VEs in Sri Lanka during the evaluation, and they were interviewed, and two other companies appeared in the grants data summary having had completed activities with comparable data. Consequently, four of the nine companies have been included in evaluation criteria. With respect to the TA component, we are still left with qualitative information that can be briefly summarized.

The large integrated company described above, has had 16 activities; eight of those for technical assistance. In each instance, the VE work plans were completed and recommendations implemented. TIPS became involved to introduce the company to U.S. companies with new processing technology. Technical assistance ranged from developing new preventive maintenance systems to reconstituting chemical compounds. Attribution of success factors reported by the company would be difficult to pin-point. Evaluation sheets submitted by the company indicated

that employment, sales, productivity, employee skills, and equipment purchases had increased. Company records showed strong financial gains, and the company's senior director reported that assistance had been effective.

The second company with diversified interests in consumer and household commodities, had contracted for technical assistance to develop a process for making toothpaste. This assignment was augmented with VE help in restructuring management with a strategy planning function. This set of activities was rated as outstanding, and the evaluation team concurs after reviewed the project and interviewing both the VE and the company's managing director. The company is implementing recommendations for strategic planning and has created a prototype toothpaste. TIPS came into the picture to help with a grant for U.S. laboratory equipment, and this too has been successful. The company procured U.S. equipment for $18,000, and has subsequent procurement orders that will exceed $50,000. The company also has hired local consultants for training and MIS development.

The evaluators verified that the remaining two TIPS/TA activities were rated as successful, but no hard data exists to support this conclusion. In both instances, TA activities led to proposals for TIPS subgrants, both related to industry visits and sourcing in the U.S., which recently occurred. One client has ordered R&D equipment, but confirmation of delivery is forthcoming. The remaining five companies were not in the database or visited, and no comment is possible.

7.3 Discussion and Implications

There is a pattern that emerges from the TA program and TIPS involvement. Technical assistance has, in nearly every instance, preceded TIPS activities, inducing companies to submit proposals to TIPS. The VEs have not duplicated TIPS activities, nor could they have addressed client needs for such things as R&D equipment, support for trade show or industry visits, or market research for product development. TIPS did not duplicate services provided through technical assistance; they were complementary. Procedures for developing and controlling TA work plans, however, should be critically reviewed. Misunderstanding that have occurred seem to point to vague expectations by clients or ambiguous objectives in VE work plans. These situations subsequently control problems for activities. Perhaps activities should be more carefully monitored and stronger direction exercised when work plans are being developed.

As a broad statement, technical assistance in Sri Lanka has been very successful with more than 9 out of 10 activities accomplished in a cost-effective manner. At the same time, there are concerns about controlling activities in an effort to improve this record. The TA Country Director is an asset to IESC and TIPS with valuable connections and a respected record as a retired CEO of an international firm operating in Sri Lanka. This strategic profile is vital, but stronger direction over work plan activities could resolve misunderstandings before they become critical. In addition, IESC/TA evaluation methods remain paper-bound and subjective; client data has not been transformed into measurable criteria or entered into the monitoring system.

Theoretically, if something were to happen to the TIPS CEO, the TA senior director would be in charge. He is a member of the "Grants Approval Committee" and attends all weekly TIPS management meetings, but he is not sufficiently involved with TIPS operational activities or daily procedures to immediately step into the CEO's job. This is not a criticism of the individuals, but the reality of how management of TIPS and the TA component is structured. The managers get along together quite well, but each has distinctly different responsibilities. This leads us to believe that TIPS and IESC/TA should be cleanly separated or that a new project design should put technical assistance specifically under TIPS as an integrated and funded component with management accountability. The latter may not be possible without a strategic realignment through IESC channels.

8.0 TIPS U.S. OFFICE FOR PROMOTION AND FOLLOW-UP

8.1 Role Responsibilities, Objectives, and Activities

The TIPS/US office acts as the window to the U.S., and it is structured to provide rapid response to requests for information used in assessing subgrant activities, feasibility of activities for clients, developing promotional and trade show programs, and coordinating training opportunities such as liaisons through the Entrepreneurs International program. In addition, the TIPS/US office provides hands-on assistance for Sri Lankan clients while in the U.S. during trade show participation, industry sourcing trips, training, or meeting with potential coventure interests.

Essentially, the U.S. office performs a support function and does not initiate its own activities; it responds to initiatives from Sri Lanka. However, the TIPS/US Project Officer has been given responsibility for developing an integrated database system, organizing and directing market research programs, and helping U.S. companies identify opportunities in Sri Lanka. TIPS accounting and report processing is accomplished through the TIPS/US Project Officer who reports directly to the IESC Regional Vice President for Asia. Staff assistants help in sector development programs, surveys related to markets and technology sources, ABLE study preparations, and coordinating US/VE assignments and consultaning in support of the Sri Lanka project. At the risk of making this sound trivial (which it is not), the U.S. office gets involved with any aspect of the TIPS program in which Sri Lankans visit the U.S., inquire about trade shows or technology linkages, or seek information on U.S. resources.

From program inception until March 31, 1993, the office has been involved in more than 400 various activities, in addition to standard tasks such as administration and accounting, and tackling the creation of a unique database management system. The staff completed 95 brief information reports for Sri Lankan companies, had 40 more in progress, and had 18 either temporarily on hold or pending action through March 31. By July 1993, those numbers had increased by approximately 10 percent. In parallel, the staff had completed 12 information reports initiated for U.S. companies interested in Sri Lanka; 15 more were in progress, and several new ones were added after March 1993.

The U.S. staff had also been involved in 21 trade shows. As described under the grants program, most trade shows were coordinated with seminars, industry visits, or meetings with U.S. companies for potential linkages. Consequently, TIPS/US was involved in arranging US/VEs or paid consultants to present programs for Sri Lankan visitors, and through the end of March, had completed 14 programs; two more were presented in June, and six were being developed for future grant activities. Add to that 40 industry site visits which were sourcing contacts for technology or markets, seven scheduled and being coordinated for future events, and follow-up activities (correspondence, further elaboration on coventure or joint venture possibilities, etc.). The office also conducted all coordination activities for the EI participants and completed three with ten more activities pending. Finally, the staff handled 20 in-depth study requests, including the 13 ABLE studies, completing 10, with four in final stages of preparation.

8.2 Results of U.S. Office Support

Assessing the results of U.S. office support cannot be considered apart from the total TIPS performance review, however there are several observations to make. The $1.3 million in new sales reported under "grants" for the 20 firms evaluated, coupled with the $1.6 million in new sales by firms in the 48-company

follow-up constitute $2.9 million, of which about $1.8 million was to U.S. companies. Although based on sampling information, it is estimated that nearly 95 percent of this occurred through new U.S. linkages created through trade shows, industry visits, and collaborations initiated by TIPS. Through similar types of linkage activity and visits, TIPS clients purchased (confirmed and delivered) about $480,000 in U.S. hardware technology (out of $750,000 reported, the remainder through client contacts or non-U.S. companies). An estimated additional $600,000 in procurement is currently on order.

Consulting, either in the U.S. or by U.S. persons brought to Sri Lanka resulted in about $520,000 or the $740,000 reported (remainder being domestically contracted or from non-U.S. sources). All of this activity is verified but does not account for 142 client firms that have not completed their grant activities or have not yet been queried about their results (follow-ups will occur at scheduled post-grant completion, six months or one year intervals).

Formal linkages for collaborations, coventures, joint ventures, or agency agreements are also important to consider. To date, there have been 16 activities related to finding potential U.S. investors, resulting is 12 possible agreements. The TIPS tracking system, unfortunately, does not yet identify formal completions or the companies involved. The evaluation team spoke with five of the clients reporting potential joint venture or collaboration agreements. Our assessment is that four of the five have a good chance to conclude some form of agreement, but only one is likely to be true joint venture. This involves a negotiation between a poultry processing company that has had progressive communications with a major U.S. company to form a joint venture for building a feed mill in Sri Lanka.

A jewelry client has a contract with a U.S. retail chain to provide custom-made items, and although the owners suggest that they may form a joint venture for trade, their explanation was of an "Export Management Company" which is an import/export agency under U.S. law. A toy company that hand-crafts innovative gifts has had a U.S. mail order company offer to underwrite in advance large orders, thus creating a means of securing proprietary access to select products, but this would be a private placement of capital, not a formal collaboration. A graphite pencil manufacturer is hopeful of forming a joint venture with a major U.S. buyer, but it is more likely that the U.S. firm will sign long term sales agreements. This will provide some stability and advanced funds for underwriting orders, but not direct investment for a collaborative venture. A microelectronics firm may indeed form a joint venture for a segment of the company's business with a California firm now sourcing components from Taiwan, but there has only been a proposal put forward. The decorative stone exporter has exchanged communiques with two wholesale nurseries, one from the U.S. and the other from Holland, but the proposals concern marketing contracts with mutual profit participation based on order advances. Finally, the granite mining company, probably has unrealistic expectations for finding a U.S. investor.

Clearly, these results could be more encouraging, and there are several clients with proposals for collaborations or ABLE studies that are promising. The results are not discouraging, however, because forming joint ventures require lengthy negotiations and some sustainable advantage for both parties. Also, there is a great deal of unreported activity among clients and contacts made through TIPS. For example, an industrial scale manufacturer has an agreement with a U.S. company that markets measuring instruments. The U.S. firm will provide state-of-the-art technology for instrumentation in return for an equity position in the Sri Lankan firm. Also, a Sri Lanka packaging materials company has an offer from a U.S. firm for exclusive rights to market its products in the U.S., and the agreement is set for signing. In addition, a manufacturer of power-related surge protectors for computers and electronic components signed an agreement with a US company that will provide technology for UPS systems in exchange for exclusive marketing rights to the Sri Lanka company's products; this is backed up by a guarantee by the U.S. company of $300,000 in first-year sales.

The success of grants, contacts for joint ventures, sourcing agreements, and marketing agreements combine to form a strong profile of success for TIPS, which is attributable to the combined efforts of the TIPS organization. The results would be ar less significant or impossible without the integrated system created through IESC for TIPS with both U.S. and Sri Lankan offices.

8.3 Discussion and Implications

On visiting the IESC headquarters and the TIPS/US staff, it was clear that everyone maintains a high level of energy and is involved in many activities. Results reported officially do not capture the essence of the support office or the extent to which staff must busy themselves with details of promotional and grant activities. Probably more than half of what they do is not reportable, such as spending hours working on trade fair booths, working out client itineraries, calling potential customers, corresponding with business associates to answer client inquiries (or arrange for visits), and so on.

The IESC headquarters organization is also very much involved with TIPS, and many support activities do not appear on reports. TIPS has an accountant assigned to handle transactions, for example, yet vice presidents, the treasurer, the controller, and departmental staff are concerned with IESC/TA, US/VE, ABLE, EI, and the new MIS/Database. Although these situations would occur for most grantees or contractors, IESC's distinct advantage of having a tightly knit team coupled with a global network of business associates and volunteer executives establishes an unusual pattern of integrated services.

A missing dimension, perhaps not one possible to address through IESC or TIPS, is a strong connection to venture capital and start-up funding. One client comment, meant as a plea for more help but not a complaint, illustrates the point. A struggling Sri Lanka entrepreneur in the electronics field had been introduced to new technology, purchased new designs and test equipment, and had concluded new sales contracts in the U.S. and Europe through TIPS. Having accomplished this, he is positioned for growth but has very limited access to equity funds beyond his private means, and bank credit in Sri Lanka is difficult. Consequently, he exclaimed, "I cannot swim....TIPS assisted me to the deep water and opened my eyes to new destinations, but TIPS should not leave me until I learn to swim and can reach shore."

9.0 MBS MONITORING AND EVALUATION SYSTEM

9.1 Description and Status

The monitoring system proposed in January 1992 for TIPS was intended to cover all activities and results achieved through the Promotional and Grants Programs while also maintaining information on the IESC Technical Assistance component. The conceptual design was to accumulate company data for all clients, track data annually and through life-of-project for TIPS, then establish useful analyses and reporting systems on activities. This client-level activity was to be phase one development followed by a second level of data files tracking macro information on Sri Lanka's economy with sectoral information. Using company and macro data, comparative performance criteria could be developed. The monitoring system was also to be international, linking US and Sri Lanka offices.

When the system was initiated, the designers envisioned being able to access accurate company data. Based on a five-firm survey and file information, the designers proposed performance criteria that seemed adequate. These included measures of sales activities, output value, capacity utilization, employment, productivity (labor based), financial position, expenditures on technology, training, promotion, and market research, and summary data on formal linkages, subscriptions, and memberships. At the macro level, standard economic data was to be collected for national and sectoral analyses.

Armed with this data, the monitoring system would then provide reports based on user requirements in IESC, TIPS, and USAID, and useful information for other donors and constituents. Reports were to be client specific at the company level, monthly and quarterly at the TIPS operating level, and quarterly or annually at other levels. A good data base system would also be able to address one-off reports for particular uses, such as evaluations. Consequently, such a system could become a model for projects and perhaps other donor programs if the hardware and software environments are compatible.

These were not necessarily over-enthusiastic objectives when the system was designed, and the planning horizon for implementing it was to have a functioning system in place by the mid-term evaluation. To accomplish this, IESC specified hardware and software configurations early in 1992, began programming, and began collecting client data. In Sri Lanka, hardware was installed during the summer of 1992; software was installed in stages with off-the-shelf support until early 1993 when the core monitoring system software was loaded. Programming delayed further progress until May. Nevertheless, client data was collected by TIPS from project inception; most collected on initial contact, drawing on company records and interviews prior to grant approval. Information was transferred to the core system as it came on line. The Technical Assistance component client information remains on hard-copy records, not yet transferred to the data base. Electronic linkage between the US and Sri Lankan offices was being accomplished during the team's visit.

Although TIPS activities have accelerated, system development has slightly lagged expectations. It has evolved to the stage of international linkage, and is in testing for data compatibility and usefulness. What remains to be done is the design of user analyses and reports. The system can be characterized as proprietary, based on PACE software in a Wang environment, although we were advised that it could be migrated to a UNIX operating system. It is, however, primarily a transactions-oriented system that relies on data accumulated from standard accounting records. Macroeconomic data is based on obtaining consistent and reliable information from government reports and the Central Bank.

9.2 Monitoring and Evaluation System Effectiveness

The basic assumptions about system development and data collection noted above present some problems. There are three sets of issues: validity of data, system design, and management.

9.2.1 Validity of Data

Although measurement criteria assumes reasonably easy access to standard accounting transactions, many clients have not been able to present verifiable data on complete baseline criteria. Sales volume and value are estimates for recently established ventures, and for those with audited records, there is a likelihood of some variance. Income reporting is most likely understated due to sensitivity to high tax rates, surcharges, and defense levies, coupled with an economy based largely on cash transactions. Clients generally have rudimentary accounting systems that address standard transactions, but many records are kept superficially. Cost accounting and control records for quality, labor hours, output, productivity, waste, defects, and machine scheduling are seldom in place or understood by most clients. Common use of home-based piece-rate workers complicates cost control, inventory management, and finished goods deliveries.

Developing countries are characterized by cottage industries where the optimal technology is labor intensive tooling in small job-lot quantities, often reflecting broad differences in work schedules. Standard costing systems do not exist, and even piece rate systems depend on uncontrollable variables (e.g., weather, fitness of workers, or situations such as housewives working around domestic duties for cash payments). These circumstances make it difficult to track verifiable expenditures or to place values on results. Calculating labor productivity, cost changes, utilization, or value-added output can be futile.

Another serious issue is the specification of data to be collected. In the design, "base year" data was intended as the benchmark for measuring impact over time. However, base years differ for each client depending on when an application was made for assistance, and whether the client had data for current or previous years. As the TIPS project continues to award grants and collect data, base years become more complicated, currently ranging from 1990 to 1993 on the standard fiscal year ending March 31. Consequently, many clients reported data on partial year operations when applying, and this is not incorporated into the monitoring system. In the long term, such irregularities would smooth out, but during the early project stage, complete and accurate client data is understandably not captured by the monitoring system. Consequently, analytical reports will have little meaning until consistent reporting methods can be developed for clients.

At the macro level, data and analyses are nearly as sparse, and perhaps even less reliable than company data because they are amalgamated from one-off samples and commissioned studies. Some data is tracked with care such as national debt, foreign investment, bank credit, and interest rates. The consumer price index and key economic indicators are based on international accounting standards, yet banking legislation and standards have been only recently adopted and are not necessarily entrenched. Growth rates, output measures, transaction balances, vendor credit, consumption patterns, and many other variables simply have not been traced through reliable source data.

In export and import transactions, there is a common practice of using an "8/10 rule," whereby 10 items (tons, boxes, machines) are shipped, but 8 are invoiced. Duties accrue on invoiced value, but customers receive full orders and settle accounts privately, thus avoiding duties or quotas. Selective government policies and concessions thereby often instigate questionable behavior and lead to distortions. Reportable statistics used for comparable analyses are going to be equally distorted. Sector data suffers from these shortcomings and is further complicated by inadequate data collection on company performance.

9.2.2 System Design

The monitoring system design is transaction based and does not address crucial information on quality and productivity. The best measure in the system related to productivity is an output value adjusted for electricity and fuel factor costs. This is distorted by government subsidies for fuels and concessions given to selected industries. But quality measures such as rejects, defect rates, rework, returns, warranty costs, reliability data, quality testing, materials costs, and vendor performance are ignored. For clients who expect to export, to link with U.S. or European companies, or to attract foreign capital, developing a quality profile with verifiable performance criteria will be essential. TIPS clients are, in fact, beginning to ask for assistance in quality management techniques, and many are learning through their failures in foreign markets or when courting foreign investors that quality standards are paramount.

The design of the system is based on proprietary software and equipment that may restrict efforts to replicate it elsewhere. The monitoring system may be well-suited to IESC, but it is not based on widely used software, and data may not be portable. The software program may need rather extensive enhancement to address user needs. User reports, illustrations, and analyses are currently derived by using several off-the-shelf word processing packages, graphics software, and spreadsheets. Unless the monitoring software can fulfill user expectations, there is the danger of ending up with an incompatible system of data management.

9.2.3 Management

Managers and staff are extremely well qualified and capable, but they may have had too much to do given the accelerated pace of TIPS activities. Source data collection has been the responsibility of one manager, although all managers support the effort. In two years, more than 1,033 client applications have been considered, initial data collected on more than 500 companies, and an attempt was made to gather thorough information on all 215 approved clients. That required investigation of about four companies each week with site visits, interviews, and documentation in addition to developing the data base, securing equipment, and responding to other duties. TIPS has smartly engaged a Sri Lankan economist to assist with macro data, and office staff are well trained. However, the TA staff have not become involved with the system or with common system procedures.

In the US office, programming has been one person's responsibility, and the task has been approached from the developer's viewpoint. Consequently, user involvement was not substantial during the early phase of development and has emerged more strongly only recently. This is not uncommon, but it would have been far better to have begun by systematically involving end users to influence design decisions based on field conditions. Consequently, the monitoring system, although very good, must be fine tuned, and management will have to address data problems and impact criteria (e.g., measures of quality and productivity).

9.3 Discussion and Implications

Although there seems to be many points of criticism, they do not represent unsolvable problems. Certainly constraints on data, both at the company and macro levels, are beyond management's control; TIPS will have to adjust expectations to conform to those limitations. Refinements in the design and implementation of the monitoring system will require time and better coordination between field activities and the home office. Having someone with hands-on factory experience in production and operations systems, particularly in developing countries, may help to improve the system. The monitoring system managers must resolve questions about report formats, data presentation, effectiveness of data, and the ad hoc use of assorted software that may result in compatibility difficulties.

10.0 IESC/TIPS PERFORMANCE IN SRI LANKA

10.1 Impact as Assessed by Goal Achievements

The TIPS project was designed as a catalyst of change, and in section 4.2 of this report, the project's three strategic objectives were described. Each of these are addressed here in terms of impact, reflecting on component results and support activities detailed in Sections 5 through 9, and summarized in tables in Appendix A. In addition, and as a check on the overall project effectiveness, the evaluation team sought five companies to evaluate that had not benefitted from assistance, comparing their progress with that of TIPS-assisted clientele. These results will be addressed together with a comparison of client results with macroeconomic data.

10.1.1 Objective #1: Demand for Technology

The TIPS strategic plan outlined in the project paper and specified in the logical framework of the cooperative agreement, the first major objective was:

> ***To generate demand for technology improvements by private firms, helping them to diagnose their needs, to plan their efforts, and to formulate their requests for assistance.***

Project ***impact*** is measured by combined promotional and grant activities. TIPS programs have directly reached more than 5,600 individuals in 3,800 Sri Lankan companies through promotional efforts; indirectly, TIPS has reached many more through public media and engagements. Requests for TIPS assistance exceeded initial projections threefold, and the number of approved grants were nearly double. Ultimately, 715 subgrant activities were packaged for 205 clients through July 1993, with committed assistance of $3.2 million. Benchmark targets under the cooperative agreement were for approximately 400 subgrant activities packaged for 90 clients resulting in $1.6 million committed through the first two years of the project. At mid term (about December 1993), activities were expected to be about 503 for 150 clients, funded at $3.3 million. These are summarized below.

Expected and Actual Grant Activity

Activity/Service	Expected Grant Uses EOP/1996	Expected Grant Uses July 1993	Actual Use July 1993
Diagnostic Technical Assistance Consulting	300	100	104
Trade Show Participations	100	35	117
Reconnaissance Trips	100	35	83
Business Linkage Consultations	250	30	129
Technology Searches	650	220	210
Co-venture R&D/E Activities	25	8	13
In-company Training Programs	75	25	29
Other: Marketing/Briefs/EI	0	0	30
Totals	1,500	503	715

(Note: Categories of expected and actual have evolved in their definitions. TIPS breaks out categories into 18 activities. In addition, activities separate from grants {free to clients} are excluded such as brief information reports and US inquiries for business linkages. Informal help and services are omitted.)

Quantitative evidence of impact related to this first objective is a dimension of the results achieved through grant assistance. These data have been presented earlier under the Technical Grants Program component and are described in the next section. As a conclusive statement, the evaluation found that for every category of measurable criteria (sales, employment, output, investment, expenditure on technology, financial performance, and productivity), the results were consistently positive and exceptional.

10.1.2 Objective #2: Provide Cost-sharing Grants

The second major objective specified in the logical framework for subgrant activity was:

> ***To provide cost-sharing grants to help offset the financial burden of searching for technologies and resources that clients can pursue, either through acquisitions or linkages, thus stimulating technology transfer.***

There are two sets of data that reflect impact in measurable terms. The first set records results achieved by 48 companies with completed activities and one year of post-assistance performance. This was derived by TIPS in a follow-up study as of March 31, 1993. The second set is data collected from 20 companies visited by the evaluation team. Two clients also appeared in the TIPS follow-up study, and two benefitted from technical assistance, therefore, the data presented here is for the 16 remaining companies. This sample provided less-than-complete information, and because none had completed all their activities, the data do not reflect one-year post-assistance results. In fact, most results occurred between March and July 1993, following activities that occurred between November 1992 and June 1993. Consequently, evaluation data reflect *client estimates of partial results;* missing data is noted in the table below as "unk" (unknown). Details of the 48-firm study and the 20-client evaluation appear in the section on Technology Grants and are documented in Appendix A.

Summary Results of Grant Activities & Client Initiatives
(Converted to U.S. dollars with percentage changes for client activity excluding grant funds or assistance.)

Type of Impact Measured Category	48-firm Study US$ or #	%	16-firm Evaluation US$ or #	%
Increased Total Sales	18.0 mill	45	1.4 mill	87
New Domestic Sales	11.2 mill	34	0.2 mill	10
New Export Sales	6.8 mill	102	1.2 mill	250
Increased Total Employment	2,810	67	650	180
New Employment, Men	2,036	115	380	210
New Employment, Women	774	58	270	140
Net Value Added Productivity	1.8 mill	9	unk	unk
Increased Net Output Value	11.5 mill	32	0.7 mill	unk
Import Material Procurement	10.3 mill	150	1.3 mill	unk
Net New Imports (US)	3.4 mill	322	0.9 mill	unk
Net New Imports (Non-US)	6.9 mill	87	0.4 mill	unk
Increased Domestic Purchases	12.1 mill	202	0.9 mill	unk
Increased Total Expenditure	15.3 mill	93	1.1 mill	unk
New Equipment/Technology	9.2 mill	91	0.8 mill	unk
New Market Research	0.8 mill	55	0.3 mill	unk
New in-house Training	56,000	106	38,000	unk
Net Capital Formation(+Inv)	3.2 mill	31	unk	unk
Increase in Fixed Assets	15.3 mill	93	unk	unk
Increase in Current Assets	6.8 mill	154	unk	unk

The recorded number of **formal linkages** from inception through July 17, 1993, were **69**. These included actual contracts for coventure collaborations, which were three, export marketing sales agreements, which were 23, technology procurement contracts concluded, which were 37, and service (design licensing, training consultancy for new processes, prototype development) which were six. This compares with initial expectations for 25 formal linkages for the *life-of-project*. The total estimated value of these linkages was $2.4 million. This is expressed as transactions in U.S. dollars that have been concluded and directly tied to formal agreements. This figure is understated substantially, but we cannot verify transactions conducted by clients with foreign interests made on their own accord.

10.1.3 Objective #3: International Emphasis

Building on the first two objectives, the third was written to focus on growth and development of international initiatives. It read:

> ***To provide information on, support for, or access to the international business community for new technology or markets to help clients achieve higher productivity and growth.***

By examining the data presented in the previous two sections, it should be clear that Sri Lankan clients have made tremendous progress in becoming globally involved in business ventures. New export sales to U.S. and non-U.S. companies increased dramatically, and new imports rose proportionately higher. Much of the new imported materials and supplies were associated with technology development such as gold casting in jewelry, enzymes for poultry immunization, pigments for new inks and printing processes, copper and aluminum for electronics, and new components for value-added assembly in power supplies, computer accessories, cable and light fixtures, toys, and processed food items.

It should be equally apparent that clients have purchased significant new equipment and technology, including laboratory, quality testing, pollution control, and R&D items. However, the majority of new technology has been purchased for production uses, including new product designs, new process systems, and specific machinery. This is coupled with marketing research and training contracted by the clients to implement TIPS recommendations or as an outgrowth of their own initiatives by being introduced to sources through their international linkages.

Directly attributing these results to TIPS is not justified, however, because clients who joined in these activities came to TIPS motivated and ready to share risks. There is no way to judge what percentage of results is proper to ascribe to TIPS, yet the lengthy evaluations of promotional and grants activities in previous sections indicates that nearly all clients felt that TIPS should be credited with a significant majority of their results. In those evaluation sections, we quoted verified data that was part of TIPS activities, such as a subgrant for purchasing laboratory equipment or one for trade fair participation that concluded with validated sales. There is a general sense among clients that their behavior has changed with enlightened views of global trade and new knowledge about foreign markets, technology, and competition.

Another important dimension is whether productivity has increased, but quantifying this is a problem because there has never been baseline data on productivity, nor are there current measurements to address. We have specified productivity in terms of the data collected (net new output value less costs for energy), but this does not capture employee productivity or improvement in asset utilization. This has been discussed in several previous sections, and it is a shortcoming that will persist in most developing countries where cottage industry prevails, part-time and piece-rate labor is used, cost accounting is rudimentary, and quality measures do not exist. Nevertheless, productivity (as specified) has increased, and the evaluation team's observations lead to the conclusion that far

greater changes have occurred than recorded. For example, the graphite pencil manufacturer installed new kiln curing technology that increased finished goods capacity from about three kilos per hour to over 80 kilos per hour, and the company has reduced rejects by two-thirds at significant cost savings. Another is a producer of light bulbs that more than doubled the company's rate of productive output with a new assembly line process, reduced waste, and reduced labor hours by a third.

Growth is the final consideration under the third objective, but this also presents a measurement problem. We have specified growth in sales, employment, and various other categories, but "economic" growth is a complex calculation that involves all sources and contributions to national income, adjusted by proper deflators, then combined as an aggregate in GDP. Macroeconomic data on Sri Lanka provides GDP aggregates based on national income accounts, but we cannot make similar calculations with the data at hand (for example, we have no information on income from wages, tax contributions, or sector costs for client firms). As a proxy, we suggest comparing changes in gross sales as a rough estimate of the direction and intensity of change, and these data are compared, by sector, in Table 19, Appendix A. The evaluators matched client data to each sector and found that in most instances, clients had a rate of growth in excess of their industry averages. Taken together, the 48-firm study and the 16-firm sample reported in the prior section experienced growth rates between 45% and 87%, clearly greater than the national average of about 4.5%.

10.1.4 Five-Company Validation

As noted at the beginning of this section, an attempt was made to query five companies that had not benefitted from TIPS assistance. In the original scope of the evaluation, this was meant to be a survey providing hard data on five such companies to compare with five similar clients to establish a valid checkpoint on overall performance of TIPS. The evaluators and USAID agreed, however, that such a task would be difficult without access to companies and their data. Consequently, we chose five firms who had qualified for grants, but were subsequently dropped for inactivity or decided not to participate. Managers of the five companies, however, refused to divulge useful data and spoke only with the Sri Lankan consultant with guarantees of confidentiality. We will describe their responses.

A client in the gemstone and jewelry business had benefitted from TIPS, completing three initial activities before withdrawing from the program. He did so, complaining that client information in his industry leaked out quickly through the TIPS office to his competitors. This allegation was not able to be verified, and as it was the only instance of such a complaint, the evaluators concluded that it is unfounded. We also learned from the client and limited grant records that his sales growth has been meager, and export sales that may have occurred through a TIPS supported trade fair did not materialize. The client said that he and the international buyer had had "a misunderstanding." From TIPS' viewpoint, the client simply ran out of money and withdrew, subsequently blaming TIPS for his cash flow problems.

A client in food processing who made a reconnaissance visit to the UK under a TIPS grant was subsequently denied reimbursement and dropped from eligibility. He had every reason to begrudge his experience with TIPS, but he said that the TIPS management had been correct; he had acted inappropriately, although not with wrong intentions, and was denied assistance. Consequently, he has not improved his operations with new machinery that he had hoped to purchase, and he has not been able to enter the health food industry, which was his original intent.

The third client wanted a foreign consultant to help with new processes that would reduce material costs and increase sales. He is in the business of manufacturing power supplies and electric components. TIPS found consultants and was prepared to assist with 67% of the cost through a grant, however, the client

felt the fees were too high, regardless of the grant, and rejected help. He has commented that if local consultants were hired, they would pass on information on his operations to competitors, and that he is reluctant to accept help from the IESC/TA program where retired executives just "come to Sri Lanka for a holiday with little to offer." He recently agreed to hire an Indian consultant who will work for a percentage of cost savings and new sales, and he expects to achieve 20-25% improvements in both by the end of 1993.

The fourth client has been involved with making activity carbon for filters and has interests in various import/export activities. He approached TIPS for help finding a U.S. investor to underwrite expansion of filtration products, and after a brief information report showed only limited interests, he wanted to make a reconnaissance trip abroad for marketing. A grant was approved but no action was taken. The client felt that TIPS had taken too long in reacting to his request, and then had provided little incentive for him to be involved. He has not found an investor or implied any notable change in his business.

The fifth client was assisted to visit the U.S. where he located machinery and was advised by a U.S. company regarding a new cheese process. He also had some success in opening negotiations with a U.S. company for a partnership on manufacturing cheese in Sri Lanka for export, but the connection was never solidified. Apparently, the Sri Lanka client did not have sufficient resources to really get his idea launched, and the effort simply dissolved. His criticism was that TIPS got him excited about the new venture, and a great deal of time and money was spent searching for technology, yet without start-up capital or better local support, the efforts were wasted.

As a conclusion, the time spent trying to obtain useful information from these companies was not very productive. A substantial survey with an adequate design and several weeks of concentrated effort may have been constructive, but probably would not have altered the evaluation results. Allegations cannot be substantiated, and aside from the issue of confidentiality, they shed little light on potential problems with TIPS. The fact that no serious issues surfaced may in itself be confirmation that TIPS has indeed been successful.

10.2 Relevance of Assistance Provided to Client Firms

Based on the analyses presented for TIPS project components and the details of impact assessed by goal achievements, we can conclude rather strongly that assistance provided to client firms has been well focused and efficiently implemented since the project's inception. There are reservations, as described earlier, about technical assistance assignments and effective control over work plans that could improve IESC/TA assignments and the results for its clients. This is, however, an issue separate from the TIPS project design and management.

Interviews with the five companies initially approved for grants and subsequently dropped from client lists reinforce this conclusion. As noted above, these were potentially belligerent respondents with cause to criticize TIPS, yet they could not fault the outcome of their efforts or present a rationale for nonparticipation. Relevance of grant activity became an issue as several respondents wanted TIPS to support proposals that TIPS managers avoided as inappropriate. Reviewing six files of clients who were denied grants also supports our conclusion that TIPS did not provide assistance without careful thought. Finally, each of the 20 clients visited by the team was queried about the relevance of promotional and grants assistance, and none were critical of the overall results. Several did, however, suggest help by TIPS to focus their proposals better; several others had hoped for assistance that was beyond the project's scope (e.g., production equipment).

There is the strategic question, addressed in the final section of this report, whether TIPS should be involved in targeted industries or be expected to

emphasize export-orientated companies at the exclusion of others. Within the mandate handed to TIPS, management has kept to contract conditions and adjusted as requested to address export priorities without specific targeting. There is no point of criticism to consider. TIPS has been responsive and responsible, but future refinements may be forthcoming to alter the direction of assistance.

10.3 Sustainability of Project Efforts

Several clients are concerned about being weaned off assistance before they can hold their momentum, and several more are adamant that they must find further help to implement recommendations or to carry forward initiatives that were begun under TIPS. Sustained effort is therefore not conclusive, but it may not depend on TIPS assistance as much other factors. Specifically, a majority of the clients simply lack access to sufficient operating capital to take advantage of the opportunities created through promotional activities and grants. As described in the component sections earlier (and elaborated in the client appendices), clients who have identified technology to purchase have difficulty in arranging funds for procurement, and aside from collaborations with U.S. providers for trade credit or buy back arrangements, the clients feel stymied by local banking constraints and a dearth of venture capital. Marketing initiatives can be equally difficult because clients must seek money to underwrite production expenses in advance of payments, and even confirmed LCs are not "bankable" for extending credit.

Access to imported materials and equipment also present problems related to duties, quotas, and concessions (or lack of them) which create a climate of unpredictable factor costs. These combine with existing tax regulations to drive up prices, often to uncompetitive levels both domestically and in export markets. Sustained efforts, therefore, often rest with the regulatory situation faced by a company, and many clients have little confidence in the government to be able to reduce these hindrances. If a more market-oriented economy existed, and if regulations were supportive rather than restrictive in clients' views, then most feel capable of sustaining their efforts with reasonable access to capital.

Consequently, the evaluation team feels that a large majority of clients will persist and overcome the barriers they face, but it will be an uphill struggle as long as the country is economically troubled. Some, of course, will not sustain their efforts as hopeful joint ventures do not materialize or the company's management is incapable of repositioning their efforts. We have illustrated several cases, such as the granite mining company, where a U.S. joint venture is unlikely, a yacht manufacturer where the company's product may never meet export quality standards, and a multi-divisional metal fabricating firm where management seems unlikely to want to make the hard decisions necessary to succeed. Successes, however, far outweigh problem clients and early performance results by a vast majority of TIPS clients are evidence of continued strong performance and growth.

10.4 Gender Considerations in Client Assistance

The TIPS project design was specifically intended to avoid any targeting of clients based on ethnic, religious, or minority criteria, and being demand driven, TIPS has not solicited any particular group or segment. Nevertheless, TIPS has been sensitive to gender considerations and has made a concerted effort to address women's organizations in Sri Lanka. Specifically, TIPS staff has presented promotional engagements jointly with the Women's Chamber of Commerce, sponsored 24 women for overseas technical training, and arranged for a top female employee to participate in the Entrepreneurs International program.

In July 1992, TIPS cooperated with the Women's Chamber of Commerce through its vice president for a presentation that resulted in several client inquiries

including the Chamber's vice president, who was assisted in visiting the U.S. for an industry tour and trade show that has led to additional grant activity for her company.

Of the 205 active TIPS clients, 59 are companies with women represented on their boards of directors. As noted above, 24 women were recipients of travel grants, but 16 of these were from companies other than those 59 listed with board representation. For example, the production manager for a commercial ink manufacturer, an experienced female manager, was sponsored for U.S. technology training. Also, many proprietorships formally headed by men are family businesses where wives are essentially partners working jointly with their husbands.

Employment data indicate that administrative jobs for women among clients increased modestly by 36 percent, from 200 to 272. Women managers increased by 21 percent, from 29 to 35. Together the managerial and administrative positions represented 22 percent of the total and improved by a wider margin than the composite 17 percent for men. In production, female employment gained 73 percent, up from 1,073 in the base year to year-one of 1,855. This is less than the 124 percent gain for men in the 48-firm follow-up study. Unfortunately, there is no data on employee profiles such as age, skills, education, or type of occupation, so no comment can be made about job positions or equity issues. The team did observe, however, that in production companies visited, a majority of shop floor workers were women; in gems, many of the women were highly skilled specialists, and piece-rate contractors for electronic assemblies were just the opposite, low-skilled rural housewives. Men occupied most new jobs in engineering.

Early in 1993, TIPS staff contacted the German GTZ group to pursue the idea of a partnership program to assist women in rural businesses. This led to a formal meeting between Lorne Olsen and GTZ officials in July 1993, and together, a proposal was presented to the Ministry of Women's Affairs. In addition, the Sri Lanka Business Development Centre has requested that TIPS and GTZ consider a cooperative effort to pursue women-owned businesses. Meetings are scheduled for September 1993 to follow up on this initiative. Meanwhile, TIPS has organized a promotional seminar through the Association of Business and Professional Women which is expected to take place in late August or early September 1993.

10.5 Environmental Considerations

Although "demand driven," TIPS has made recommendations to clients for improvements related to environmental protection and safety. Most clients have specifically requested help, but several required prompting as part of their grant activities package. TIPS has provided direct assistance to two industry groups and 17 clients related to environmental measures for a total of 32 grant-related activities. One of these was to launch a new project to manufacture Oxygen and Acetylene required in environmental impact studies. This was assisted by the GSL and coordinated through the Central Environmental Authority. Another was to assist a textile manufacturer with refurbishing an effluent plant. Yet another involved sending a client to India to learn about new effluent treatment systems, resulting in procurement of a system with training and installation. Several activities involved pilot projects, such as waste management for desiccated coconut, recycling of used solvents from ink production, and chemical recomposition of paints.

There have also been informal assistance activities in adjunct to grants for laboratory and quality testing equipment. For example, an ink manufacturer needed QA equipment for product testing, but has used the equipment to refine mixtures to conform to non-toxic finished ink products. Improving the kiln process for the pencil manufacturer transformed an overheated and toxic process into a clean fuel and efficient low-temperature environment. Participants in the packaging industry trade fair found new methods for environmentally friendly container and packing utilization, reducing waste and making better use of

recyclable materials. Solar power was installed by a tire retreading company initially as a cost-saving measure, but the effect was to eliminate fossil fuel and air pollutants. TIPS also assisted a manufacturer to visit the U.S. to study solar panel manufacturing, and, subsequently, the company negotiated to purchase solar cell technology for domestic use.

A significant effort is being made by TIPS in conjunction with other USAID program activities and the GSL to provide environmental audits for industries and private companies. Experts are being contracted to visit Sri Lanka to perform the audits and to help GSL agencies set up audit standards. Six pilot projects are in process at this time. Finally, TIPS has arranged for public engagements to address environmental issues, starting with a seminar for GSL Divisional Secretaries which occurred in February 1993.

10.6 Summary Implications

The TIPS project has generated tremendous impact for the effort expended, and although it has not specifically focused on export businesses until recently, the impact the project has had on new trade is substantial. Several simple calculations can be made to determine the project's cost effectiveness. If the total grants approved are implemented at full cost, assistance disbursements will amount to slightly more than $3.2 million for grants, $1.2 million for the technical assistance component, and $0.5 million for associated services and direct overhead. This is a total of $4.9 million.

Compared to results achieved in export sales, imports, value-added output, expenditures on technology, or increased net assets, benefits outweigh costs significantly, and this accounts for only 48 firms in a one-year post-assistance period while allocations and projected disbursements concern 205 clients. If this success pattern for 48 firms is representative of the remaining clients, then total economic activity generated by all 205 clients would exceed an 8-to-1 ratio to TIPS assistance for first-year results. If this progress can be sustained, the ratio will increase dramatically each year without considering impact of new employment, domestic procurement, or the effects of tax transfers and social contributions on Sri Lanka's national economy.

11.0 FINDINGS AND RECOMMENDATIONS

11.1 Strategic Fit within USAID's Assistance Framework

The TIPS project is fully in concert with USAID's strategic framework for assistance in Sri Lanka. Recall from the introduction that USAID's major goal is to ***expand opportunities through a new private-public partnership***. In order to satisfy this goal, USAID identified three objectives concerned with helping Sri Lanka create a dynamic market economy, a healthy environment, and a pluralistic democracy. The thrust of TIPS is aimed at assisting the private sector toward a dynamic market economy, with focused objectives under the logical framework presented thoroughly in earlier sections.

11.1.1 Mid-term Results and Impact

Based on mid-term results through July 1993, TIPS has exceeded initial expectations and launched a unique form of assistance to developing countries. Measurable impact has resulted in assistance leverage on the order of **8-to-1**, benefits compared to costs, for immediate (one-year post-assistance) yields. A summary of those results for the initial client group include:

- At minimum, a 45% increase in completed new sales.
- A 34% increase in domestic sales; a 100% increase in exports.
- At least a 67% increase in full-time employees.
- Approximately a 32% increase in net output value.
- Nearly 10% increase in productivity, which is understated.
- A three-fold increase in U.S. imports to Sri Lanka.
- Approximately 87% increase in non-U.S. imports.
- A 200% increase in domestic purchases.
- A 100% increase in expenditures on technology and equipment.
- At minimum, a 55% increase in market research.
- Approximately a 90% increase in fixed assets.

When the total value of expenditures on new technology, domestic sales, imports, exports, market research, and new plant and equipment are summed, the figure exceeds ***$120 million for 48 clients***. These are validated data, not mere estimates, and although taken together they represent very little economic impact on the economy as a whole, if we extend the analysis by assuming a similar pattern of success for the 205 clients, the economy activity implies more than $450 million *in current annual transactions*. By forecasting to the end of the project, assuming 500 clients, this becomes in excess of $1.2 billion annually. Although every company will not perform as well, and they will not continue to grow at such a rapid pace, impact from first-year achievements is tremendous.

To further support this point, the full-time employment impact implies more than $1.6 million *per annum* in new wage earnings, based on 1993 national income averages. Using industrial wage averages for the 48 client firms, their combined immediate effect is $1.9 million in 1993 wages and approximately $600,000 in tax contributions. This does not account for contract labor, part-time, or piece-rate disbursements, nor does it account for owners' income or dividends. As a general estimate, and assuming a similar pattern of success for the 205 client companies, TIPS clients will have generated more than $20 million per annum in taxable income; for the TIPS life-of-project, an extrapolation would put this figure close to *$60 million taxable income* and *12,000 new full-time jobs* using more advanced skills. It is easy to conceive that by the year 2000, TIPS clients alone will have contributed more than $30 billion to the national economy, including nearly $5 billion in foreign investment. In fact, this may be conservative.

11.1.2 Self-Determination and a Market Economy

Contributions to the economy must be put in proper perspective, and it is equally important to understand the effect of changes on private sector clients. In terms of the Sri Lankan economy, the net effect of TIPS is very small. This is a small pilot project serving a limited number of client companies with a total budget of less than $12 million. A ten-fold increase in assistance would begin to alter economic growth and development in a substantial way. The impact is not claimed by TIPS managers as a result of their efforts, but as the result of inspired Sri Lankans and aspiring entrepreneurs who, with TIPS assistance, have been empowered to pursue their own initiatives. Success is attributed to TIPS by clients, yet it is a partnership of mutual interests.

An unwritten objective of every TIPS activity is to ***assist those with the willingness to risk new enterprise to succeed independently***. This has an important meaning. It is not the assistance that counts (money and advice are catalysts), but the ultimate ***sense of self-worth*** that success in free enterprise nurtures. Whether TIPS and USAID staff fully realize it, they are trying to influence the national psyche, to help create a core of enterprise with an ingrained pride in economic ***self-determination***. This is the essence of a market economy, not growth rates or export dollars. It is a ***long term perspective***, not one focused on exploiting short-term comparative advantages. TIPS is helping to achieve this each time a client takes the initiative to pursue new ideas.

11.1.3 Conclusions and Discussion

The evaluation team has put forward a sense of advocacy for, and confidence in, the concept of TIPS. Perhaps our findings and remarks seem biased in favor of TIPS without critical assessment. We have, however, attempted to uncover flaws, no matter how small, and to urge clients to be candid in their criticism. Consequently, we have found a few points to address, but they are more properly defined as suggestions for improvement than critical problems. These are:

Management. The CEO provides the experience and capability of a senior executive, and that profile is vital to success. TIPS managers and staff are well-qualified and ambitious, precisely the type of staff needed for a project of this design. However, because they are well-qualified and ambitious, and because TIPS officially has a limited life, career opportunities seem bleak. As the project nears completion, managers and staff will begin to look elsewhere for advancement. The uncertainty of TIPS' future has prompted several managers to question whether they should look for alternative opportunities while the project has a high success profile. Consequently, because one strength of TIPS is its personal relationships between managers and clients, turnover could be damaging.

If the future of the TIPS project is resolved, management turnover will not be a problem; all good organizations face similar issues. If the project's future is short-lived or ambiguous, IESC/TIPS will have to consider how to maintain continuity. Early resolution of the project's future by USAID will alleviate our suggestion is that the future of the project should be addressed immediately and reinforce the confidence needed to retain staff. At the same time, a strategy must be effected for replacing managers or staff, not just to fill vacancies, but to ensure a transition of accountability and credibility for clients.

Organization. TIPS was organized with the TA component poorly defined within the organizational structure. Initially, the IESC/TA country director was the lead executive in Sri Lanka with TIPS reporting quasi-officially to him. This was modified so that the CEO of TIPS was created, subordinating the TA country director and the TA program to the CEO. Yet the TA program, its funding, and its activities remain substantially independent of TIPS. The CEO and IESC/TA senior director cooperate very well and have a mutual understanding of authority, but it is easy to envision that different persons in these posts could become bitterly entangled in turf battles or operational conflicts.

Our suggestion is that the structure be resolved cordially with lines of program authority more clearly defined. It may be best to cleanly separate the technical assistance component from TIPS, but require that both attempt to engage in complementary activities, avoiding duplication of efforts.

Monitoring & Evaluation. Development of the monitoring and evaluation system is progressing well, but there are several concerns. System end-users or beneficiaries (including clients) need more effective criteria and realistic analyses for reports. The environment and software capabilities are proprietary, limited to Wang equipment and PACE, although options exist for migrating the system to UNIX. The system reflects assumptions about data access and integrity of information that are unrealistic in a developing country. Consequently, what was envisioned and programmed, is not in full accord with field conditions. Also, the system is transactions based, restricting measurable criteria to data derived from standard accounting systems. This does not capture quality, productivity, process controls, and measures of value-added results. Finally, the system was initiated with the intent to have broad application beyond the TIPS project, and if developed correctly, could be adapted to other programs. Creating a reliable instrument for performance measurement is therefore a significant challenge.

Our suggestion is to strategically reposition development of the system to become an instrument for broad-based adoption. Consider the hardware and software environment, realistic data sources, and practical report systems. The MBS/GEARS system has much of this in place, and development efforts have been commendable, but more than fine tuning is required; migration of the system may be essential.

Technology Promotion Program. The focal objective of the Promotions Unit becomes less important as the project ages; it is no longer necessary to promote TIPS, but only to maintain a viable profile. Therefore, the promotion unit must be realigned, and roles must be redefined without sacrificing its beneficial promotional activities (i.e., coordinating trade shows, marketing initiatives, seminars, client contacts, brief information reports, linkage follow-up and many other endeavors). Assuming no change in current funding for promotions under the cooperative agreement, several suggestions could result in challenging activities for TIPS. Some of these were prompted by client remarks.

- ★ ***Develop a client newsletter.*** A client network could be established with a newsletter designed to keep readers informed about new technologies, emerging processes, marketing opportunities, and industry trends. This would serve to maintain the TIPS' profile, but also fulfill a vital information role; many clients feel isolated from world news and events within their industries. Also, we found in several instances, that client needs could be met by other clients, and a newsletter that introduced clients to one another by association would be beneficial.

- ★ ***Consider seminars with specific content.*** The promotional staff could sponsor more specific seminars on business issues, particularly where widespread needs are identified (e.g., accounting procedures, business planning, cash control, quality management). Seminars aimed at specific industrial problems such as pollution control, quality, new equipment, cost-cutting measures, and plant layout, among others, would benefit most companies that the evaluators visited.

- ★ ***Consider establishing a center for entrepreneurship.*** This would be a service center to assist aspiring entrepreneurs with new venture planning, product evaluation, and training. There is a wealth of services that could be addressed, including test marketing assistance, referral services to local resources (e.g., experts in MIS or patent protection or travel), and alternative means of financing (e.g., how to arrange vendor credit or leverage assets or approach investors with viable pro formas). Such a center could become a cooperative extension of a business incubator.

- ★ ***Establish a formal presence for ISO-9000.*** International quality standards are becoming mandated for trade, and it will not be long before Asian manufacturers lose their short-term edge in labor costs. Foreign buyers and investors will not merely move operations to low-cost producers who base pricing on inexpensive products made with cheap labor. This is already taking place in renown low-labor-cost countries like China; buyers are attracted by cost advantages but quickly ask about reject rates, warranties, and how a producer can guarantee performance. For example, it is now a matter of course that exports from Russia must have a performance bond paid by the seller, protecting the buyer against losses. TIPS could initiate this interest by promoting quality, perhaps through seminars and demonstrations, but also by enlisting the help of ISO-9000 consultants.

- ★ ***Establish a technology library.*** Several clients suggested ideas for better information resources, including a database of technology or materials, and a hardcopy library of industrial publications. A database is expensive and difficult to maintain, but a library consisting of house publications, subscribed magazines, and public sector information briefs (U.S. Patent Office Gazette) could be developed reasonably. Most company publications are free, and many industry magazines (Purchasing Today, Industry World, Water Management) are sent at low costs. Whether clients would use the library effectively is questionable, but it may be worth further study.

<u>U.S. TIPS Support</u>. The contributions of the U.S. support team are vital to the overall success of TIPS. The extensive networking created through IESC's global affiliations, the VEs, and access to ABLE, EI, and thousands of firms is a distinguishing feature of TIPS. U.S. staff have fulfilled their roles with enthusiasm. Perhaps now is the time to push the network a step further. Three suggestions emerge from our discussions with clients and constituents.

- ★ ***Extend networks to other nations.*** If time and resources permit, explore how IESC/TIPS can establish links with other donor-assisted networks in the U.K., Sweden, Germany, Holland, Canada, and Japan (to name a few with missions in Sri Lanka). If cooperative information exchanges could be established, the concept of TIPS could be seeded in these countries. They would benefit from access to TIPS clients, and Sri Lanka would benefit from deeper penetration of markets and technology sources. There is a great deal of interest in this because business owners need contacts in countries other than in the U.S. (such as access to European spice markets or conduits in Asia for electric component buyers).

- ★ ***Establish fee-based research briefs.*** This was discussed in connection with technology searches and brief information reports. TIPS often initiates, at no cost to the client, brief reports and searches to evaluate the feasibility of a client's proposal, but these are not conducted in great depth. Nevertheless, many lead to linkages or help clients formulate their plans for assistance. There is no reason why these activities could not be fee based, extended to broader sources, and conducted in such a way as to provide more significant results for clients.

- ★ ***Establish a program to promote Sri Lanka.*** Sri Lanka has been hidden from world view for years, and Americans in particular are unlikely to know much about the country. Meanwhile, there is no concerted effort to explain the country's capabilities or attributes. It would not be difficult to orchestrate uch an effort, perhaps working with other donors and through the GSL with official support. The TIPS/US office or IESC support staff could actively promote Sri Lanka by mailings to U.S. clients, preparing brochures useful to Sri Lankans in their travels, or by establishing a periodical to showcase Sri Lanka. In time, it could become independent through advertising.

Technology Grants Activities. Project statistics support the success of this core activity, and although grant activities cannot succeed apart from the other components and network support systems, TIPS does not exist without a viable grants processing program. The accelerated rate of grant allocations has, however, created some difficulties. Most of the questions and uncertainties of the TIPS project have emerged with respect to packaging grant activities. These are addressed in the following points:

- ★ ***Do not target industries for grant assistance.*** TIPS is in danger of using its total subgrant funding before the end of 1994 if the current pace of commitments continues. Because TIPS is structured to operate through the end of 1996, the initial reaction to this accelerated pace was to find a way to ration grant allocations. However, there is no reason for the TIPS project to continue under the current grant for any particular length of time. Rationing by select targeting would not only create distortions, but undermine client confidence in TIPS as an *impartial* and *responsive* organization that avoids political intervention or judgmental selection procedures. If new funding is not found, and if TIPS remains as it is, the best decision is to continue making grants (with adjustments implemented for client contributions in 1993) until grants are fully allocated. Then TIPS should exit gracefully by servicing client accounts in progress.

- ★ ***Do not restrict activities to clients with export interests.*** Although USAID has emphasized a selection process based on export capabilities, this has the danger of excluding motivated clients with unknown potential and limited domestic markets who could become giants in their industries or significant global companies. An export focus (or any other focus) reflects short-term thinking, by assuming that current characteristics are those that will prevail. It also sets in motion a fundamental bias against entrepreneurs who must start small, seldom think of global markets, and need the jump-start assistance that can be specifically provided by TIPS.

- ★ ***Logically reduce the size of grant packages.*** The average size of subgrant packages is very close to the expected $20,000 figure written into the cooperative agreement, but this was arbitrary. TIPS managers seem to have made grant decisions to stay close to that guideline, but had the figure been $30,000 or $10,000, grant packages probably would have regressed to the mean. A quick count of subgrant activities approved for 100 current clients showed that nearly two-thirds had grants between $10,000 and $18,000 with up to four scheduled activities. A quarter of the clients were close to the mean, and the remaining clients had as many as 19 activities, several approaching the $50,000 ceiling. Fewer activities packaged in each grant would reduce allocations, and subsequent grants would require larger client contribution, thus reducing allocations. It would also wean clients away from assistance more rapidly while completing grants in less time. As a result, more clients might also be assisted.

- ★ ***Focus greater attention on Asian marketing activities.*** Trade fair trips to the U.S. are important, particularly from the U.S. viewpoint of opening markets in Sri Lanka, but from the client's viewpoint, Asia is Sri Lanka's neighborhood, and the country must establish an Asian presence. IESC's forte is, admittedly, its U.S. network, but IESC/TIPS could broaden its scope through donor contacts or brief information reports based on Asian opportunities. There also would be cost advantages. Attending the Hong Kong Toy Fair rather than the New York Toy Fair, for example, would cut costs by nearly 70%, yet expose clients to similar buyers who usually attend both evens. The difference rests in those who display. In Hong Kong, Asian companies prevail, but that would be an advantage for clients to learn more about regional competitors while contacting similar buyers. The same case can be made for trade fairs in foods, electronics, and premiums. Clients could follow-up easier, repeat trips, or call on buyers at lower costs. This would enhance prospects for sustained activity.

* ***Increase technology sourcing in Asia.*** U.S. interests may not benefit from assistance aimed at sourcing Asian technology, yet many Sri Lankan clients could benefit without sacrificing quality. Certainly the U.S. is the technology leader, and clients are advised to "buy American" whenever possible, yet a vast amount of technical resources are available in Asia. Many American companies actively market their technology through Asian conduits, and regional access to American products is not difficult. Once again, as with marketing, Sri Lanka must establish itself in its Asian neighborhood, and doing so would be far less costly than sourcing in Europe or North America. This does not suggest that TIPS ignore U.S. sources, only to expand in Asian without violating source origin mandates.

* ***Strengthen activities for skills training.*** Grants for marketing and new technology sourcing have been remarkably successful, but there is far less evidence of improved skills. In-company training expenditures are rather slim, and there has been a decrease in expenditures on external training. TIPS has addressed this through seminars, workshops, and consulting, responding to client needs, but a stronger effort is needed to promote skills training and vocational development. Grant activities could support this in conjunction with a determined effort by the promotions unit to launch a systematic campaign for training and education.

11.2 Obstacles or Potential Threats to the TIPS Project

There are few obstacles to complete success for the TIPS project. Gaining access to funds needed to address client demand is a limitation of what TIPS can accomplish, but it is not an obstacle. USAID and GSL/MIST have been extremely helpful, and advocates at USAID have been more than just supportive, they have been involved from inception of the project design (it is theirs) and have been diligent in nurturing every aspect of TIPS. Consequently, there are no conflicts among the participating interests. The ambiguity of the future for TIPS presents some problems for managers concerned about their careers. Although personnel issues are the responsibility of IESC/TIPS, staff turnover could threaten the project's continuity. For example, if the project continues on its present course, funding limits could be reached for grant allocations before the end of 1994. If that occurs, then TIPS will be in the position of servicing accounts for approximately one year. If managers leave, TIPS may not be able to hire capable people who would temporarily service existing grant activities.

Obstacles and threats to sustainability are complicated by the regulatory environment, which, although improving, throws up barriers to entrepreneurs and managers who cannot access equity markets, attract investors, or qualify for bank loans, concessions, or various permits needed for trade. A significant tax burden restrains business and provokes more cash transactions. This results in a "grey" economy where companies avoid taxes through unreported cash sales and manipulate import/export quotas and invoices. This is not an effective environment for stimulating real growth, and company managers will be more likely to focus on short-term objectives (e.g., cash flow and avoiding taxes) than on investing in long term initiatives. Political uncertainty hampers domestic development and frightens away foreign investors. These are "conditions" to acknowledge, but they cannot be effectively changed by TIPS or its clients.

Fiscal policy is perplexing, particularly as it applies to managing import and export regulations, imposing taxes, and continuing to spend heavily in the public sector where a tremendous amount of funds are transferred to unproductive uses. This is not to say that social welfare or any particular program should be changed, but that support for marginally productive or unprofitable public sector enterprises is wasteful. Monetary policy that supports high interest rates to induce increased national savings (high T-bill rates), reduces the M1 stock, and slows the velocity of spending. Consequently monetary policy constrains growth while drying up sources of productive investment capital.

11.3 Lessons Learned by the Evaluation

The TIPS project is an innovative method of providing direct assistance to developing countries. Through a demand-driven response, TIPS reinforces the concepts of free enterprise and a market economy. It is an efficient model of assistance, and it is cost-effective because it provides clients with the means of pursuing their own initiatives. Ultimately, the success of TIPS will be when there are no more client demands for assistance, although the project may evolve in its mandate. Presently, TIPS is a catalyst for enterprise development. **Lessons learned** are based on the success of TIPS and its beneficial effects.

★ An ***integrated project design*** is unique, making TIPS well-suited as a model for USAID and IESC assistance in private sector initiatives. However, it may not be adaptable for other donors that do not have similar integrated business networks.

- Other donors could benefit by collaborating with TIPS or by inducing organizations in their respective countries to create the networks needed to initiate a similar assistance program.

- TIPS could build on the integration concept by nurturing relations with international business associations thereby leveraging the concept of global networking.

★ A successfully planned and implemented project is incomplete without an ***exit strategy*** that provides alternative long term scenarios or a way to withdraw, closing the project gracefully.

- Withdrawing a marginal program is not difficult, but a successful one will have a high profile and will be in demand. Having once established that profile and demand, simply withdrawing at an arbitrary point will leave a gaping hole to fill.

- Simply underwriting a succesful project as an on-going venture does not account for evolutionary changes. Initial assumptions of needs, objectives, and priorities change. Consequently, an exit strategy is essentially part of comprehensive strategic planning.

★ A ***demand-driven*** approach works extremely well to "respond to" client needs rather than to presume what type of assistance is needed and then target assistance activities. Consequently, TIPS managers encourage clients to take the initiative and to present proposals. Assistance activities then are packaged to address client proposals.

- Responding to client proposals while avoiding the ethnocentric advice is vital. However, clients often do not recognize what initiatives are important to pursue. Guidance is still valuable, particularly for newer ventures, and TIPS can fulfill that role.

- The future of TIPS rests with demand for its services, but the nature of assistance is likely to change turning toward more sophisticated technological and methods. Therefore, TIPS objectives and capabilities must be flexible and responsive to change.

★ ***Non-targeted assistance*** avoids making predetermined political or economic assumptions about sector preferences or capabilities. This not only averts potential conflicts in the host country but reinforces client confidence in the project to address proposals impartially and award grants on merit.

- Not targeting does not mean arbitrarily accepting client proposals without evaluating their feasibility. Instead, it means avoiding preferential consideration to any one group or industrial sector.

- The idea of targeting is attractive because "managed economies" such as Singapore and South Korea have succeeded by funneling resources into, and creating concessions for, selected industries capable of penetrating global markets. Managed economies, however, create power blocks of intermingled business and political interests; decisions are centralized. Dictatorial mandates prevail over free enterprise.

★ An enterprise development project can ensure rapid response and efficient services by maintaining ***distance in governance***. Although officials at USAID and MIST have been responsible in governance, they have not become involved in operational decisions. This sets the project apart from any undue government influence and strengthens its credibility with clients.

- Confidentiality is crucial for TIPS, and by maintaining operational distance from any official body, client records and characteristics are secured. If greater control was asserted by involving MIST or USAID officials in operational decisions, it would mean revealing client information which would shatter client confidence in TIPS.

★ Data required for measuring impact in a developing country is not easily obtained, nor is it consistently maintained by most companies. Therefore, project ***evaluation procedures*** and ***impact criteria*** should not be overly complex, and assistance for development of management accounting and control systems should be more strongly considered.

- The process of collecting data on operations by itself will have a beneficial effect as clients become educated in the importance of the factors being measured. Tracking production costs to measure productivity, for example, will alert clients to wastage, defects, and poor asset utilization. Because clients may lack the ability to provide data now does not mean to abandon the criteria.

- Evaluation procedures and impact criteria need not be sacrificed for lack of administrative systems in a developing country. Instead, the problems of data collection, consistency, and validation should be emphasized as inducements to improve administrative infrastructure.

★ Promoting the concepts of ***self-worth*** and ***self-determination*** is essential for success in private enterprise development. Behavioral changes fostered through a free enterprise system are fundamental to establishing a sustainable market economy. It is the collective psyche of a people that is the "engine of growth," not temporary comparative advantage or unusual strength of a particular economic sector.

- In a demand economy, *entitlements* prevail over *incentives*. People in public enterprises rely on entitlements for survival; street beggars rely on handouts. Their benefactors and methods of inducement are different, but the results are similar except in magnitude. People come to rely exclusively on the benevolence of others, or learn how to manipulate the system. Private enterprise development reverses this process, replacing entitlements with incentives. The TIPS model is exceptional because assistance is an initial incentive. Clients know they cannot become dependent on TIPS or expect entitlements.

- Developing a pervasive national psyche of self-worth is cruical for economic prosperity and social advancement. A demand economy has absolute limits even though government could control all income and assets, creating a total welfare state through entitlements; these entitlements could never exceed the total income of a self-contained society. A free market economy has no absolute constraints. If TIPS could be expanded and its impact leveraged, a national psyche could develop quickly as the real engine of national growth.

11.4 Recommendations for the Future of the TIPS Project

During the evaluation, several rounds of discussions took place with USAID officers, MIST staff other GSL officials, and representatives from the Central Bank, the World Bank, UNDP, six foreign embassies, and more than 20 local organizations. In each instance, the major issue that emerged was what to do about the future of TIPS.

11.4.1. Alternatives to Consider

Many general alternatives for the future of TIPS were discussed, but five were identified with potential, each in broad terms. These are:

- ★ Continue TIPS and gracefully end whenever the project is completed.
- ★ Continue, but with enhanced funding to meet accelerated activities and repeat the effort with another project increment (length to be defined).
- ★ Create a multi-agency organization with donors from other countries under an umbrella organization, with each country pooling funds to mutually pursue private sector development under the TIPS model.
- ★ Create a for-profit enterprise in Sri Lanka, perhaps with support from World Bank and USAID grants and loans, with the idea of the "private TIPS" becoming self sufficient in due course.
- ★ Establish a non-profit organization which could attract donor funds and could offset development costs with subsidized fee structures, but one underwritten (at least initially, perhaps indefinitely) by donor funds.

The first choice is self-evident; continue until funds are allocated, then service clients to complete grant activities. There is no presumption whether TIPS would be repeated here, enlarged, reduced, or changed significantly. This is feasible but not optimal. It assumes that client demand could be fulfilled through one pilot project effort, and that clients would sustain efforts. Both are unrealistic with a simple "end" to assistance.

The second choice is the easiest to envision, but it relies entirely on USAID to find additional funding for activities, and then to be able to successfully sell Washington on an enhanced program for a longer period of time. If this could be achieved, it would be a strong alternative, and because TIPS is fundamentally sound, there should be little tinkering with it. The objectives and activities would need fine tuning.

The third alternative, a multi-donor situation with several countries and interests involved, initially sounded promising, but it is probably not viable. The possibility of political entanglements, a proliferation of bureaucratic protocols, and conflicting interests could be a nightmare. Who would be the lead manager, and from what country?

The fourth option, to essentially "privatize TIPS," has merit and could be achieved with sufficient underwriting at inception following by good strategic planning to incrementally convert all activities to private interests. This could be accomplished, if laws permit, through a model now used in the U.S. to spearhead technology transfer. This is the Research & Development Limited Partnership (RDLP).

Under U.S. law, an RDLP is an equity based enterprise with all the rights of a formal limited partnership company. There is a general partner who controls and is accountable, and limited partners with liability matching their contracted equity interests; limited partners cannot, by law, be involved in operational

decisions, but the general partner is responsible (and liable) to the partners. An RDLP can have any category of equity interest and any category of investor. Consequently, government agencies (federal, state, and local) invest in RDLPs and share in losses and profits. Universities and NFP organizations also invest, often gaining equity in return for proprietary technology, use of research facilities, or seconded researchers. Private companies, other partnerships, or corporations can invest in the same manner. Few individuals invest, yet there are so-called "angels" who commit funds through foundations or grants in exchange for equity positions. The Center for Innovative Technology, near Dulles Airport outside Washington, D.C., is an RDLP that brings together private industry and university research, mutually supporting one another's efforts, then finds a locus for innovations as commercial products or processes.

The fifth alternative of a non-profit organization is equally viable with a configuration such as a private RDLP, but it has the advantage of being able to attract sizeable grants or subsidized loans from major multi-national organizations such as the World Bank, the Asian Development Bank, or the Asian Productivity Organization. Equity interests would be represented under a general model such as US non-profit corporations. It could be multi-national or legally incorporated in Sri Lanka, if laws permit, and operate on a fee basis, seeking "profits" in the sense of initially becoming self sufficient, then succeeding in generating surpluses that could be redistributed for other social programs. A model of this (although it sounds odd) is the Hong Kong Jockey Club, a horse racing enterprise licensed by government with partial representation on the board by government and constituent interests. It must redistribute net earnings each year, and does so, to support university research (actually underwrote the entire new University of Science and Technology), orphanages, hospitals, AIDS programs, public recreation facilities, and the like. The Hong Kong organization is capable of funding from surpluses more than $6 billion each year.

11.4.2. Summary Recommendations

Our summary recommendation is to focus on redesigning TIPS around either a non-profit or a for-profit organization, aimed at implementation post-1996 as the next phase of assistance for Sri Lanka. Which alternative is best depends on too many variables beyond this report. Meanwhile, USAID should strive to enhance funding for TIPS to meet accelerated demand through the end of 1996, earmarking funds for design development and new initiatives that might be adopted from earlier suggestions. If funding does not materialize, then the only option is to continue with dignity until funds are committed and manage client activities in the best way possible while attempting to reposition TIPS.

Strategically, USAID should organize a redesign effort early in 1994. Enhanced funding equal to at least the existing grants program should be pursued to fully sustain the project's success through the contracted period. In the process of redesigning and underwriting the exiting project, there should be a focused effort to create a planning process for developing exit strategies or long-term scenarios.

From a tactical viewpoint, TIPS and USAID should review suggestions made earlier, redefine promotional objectives, adjust grant activities, and address management issues as immediate concerns. IESC should consider how to improve the monitoring system by repositioning it as a tool for other assistance programs with an easily adapted platform and software environment.

At the operational level, TIPS should redefine how it packages subgrant activities, implementing smaller sets of activities in each allotment with shorter time frames for completion. IESC should also resolve the TIPS and Technical Assistance management structure, and take this opportunity to alter TA evaluation procedures with measurable results incorporated into MBS/GEARS.

APPENDIX A

TABLES AND ILLUSTRATIONS

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TABLE 4	Classification of Engineering Services
TABLE 5	Analysis of General Services
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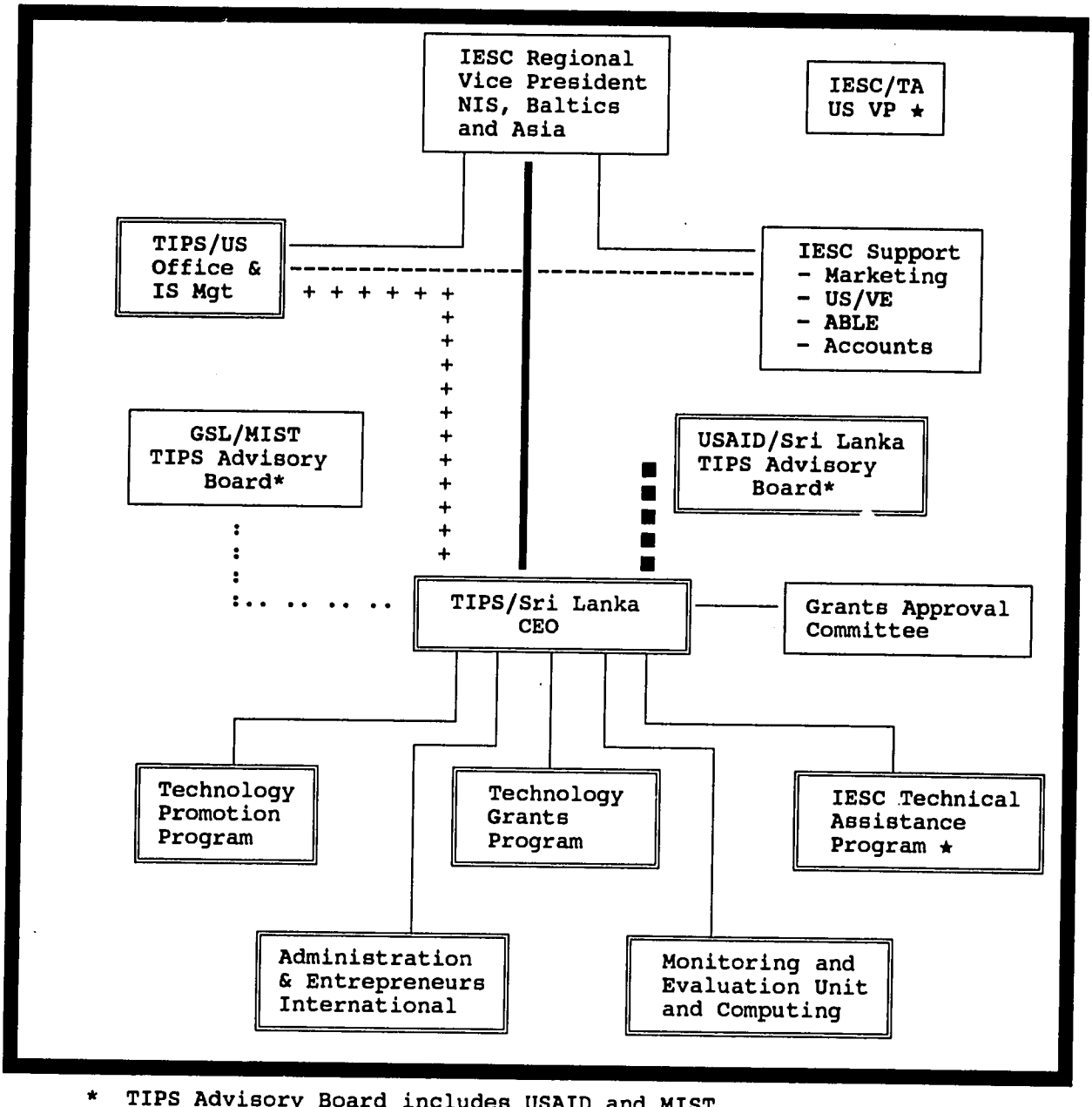
TABLE - 1

IESC/TIPS ORGANIZATION STRUCTURE



* TIPS Advisory Board includes USAID and MIST.
★ IESC/TA is a TIPS component but is separately funded under IESC.

TABLE - 2

INDUSTRY DISTRIBUTION OF CLIENTS
July 1,1991 through June 30,1993

INDUSTRY	NO. OF COMPANIES
Food	42
Jewelry	23
Engineering	21
Chemicals	21
Rubber Based Products	20
Light Engineering	19
Plastic & Polymer	16
Packaging	15
Software	12
Coconut Based Products	12
Printing	10
Toys	10
Furniture	07
Ceramic	07
Textile (Environmental)	05
Flooring	05
Ornamental Fish	03
Stationery	02
Glass	02
Decorative Candles	01
Horticulture	01
Fish Nets	01
Lab Equipment	01
Pencils	01
Total	257

TABLE - 3

CLARIFICATION OF SOFT TECHNOLOGY ASSISTANCE
July 1,1991 through June 30,1993

ASSISTANCE	NO. OF COMPANIES
Training programs outside the U.S.A.	72
Non U.S. Technical Consultants - Visit to Sri Lanka	68
Attending U.S. Technical Programs	53
U.S. Technical Consultants - Visit to Sri Lanka	50
Training Programs in the U.S.A.	26
Search for U.S Technical Consultants	19
Search for U.S. Technical Collaborators	17
ABLE searches for technology	08
Attending non U.S. Technical Programs	08
Meeting consultants	07
EI Training	07
USVE	06
Others	26
Total	367

TABLE - 4

CLASSIFICATION OF ENGINEERING SERVICES
July 1,1991 through June 30,1993

TYPE OF ENGINEERING	NO.OF COMPANIES
Electronics	09
Electrical	04
Energy	04
Environmental	03
Civil	01
Total	21

TABLE - 5

ANALYSIS OF GENERAL SERVICES
July 1,1991 through June 30,1993

SERVICE TYPE	NO. OF COMPANIES
Training Materials	35
Software Assistance	28
Meeting Joint Venture Partners	08
Other Studies	08
Searching Joint Venture Partners	04
Membership Fees for Professional Bodies	02
Establishing Overseas Branches	02
ABLE Studies	01
Total	88

TABLE - 6

ANALYSIS OF ENVIRONMENTAL & ENERGY SERVICES
July 1,1991 through June 30,1993

SERVICE TYPE	NO. OF COMPANIES
Consultancy Assignments	11
Purchase of Equipment	08
Environmental Audits	06
Feasibility Studies	02
Training Programs	01
Sourcing Partners through ABLE	01
Meeting Collaborators	01
Purchase of designs	01
Developing a Prototype	01
Total	32

TABLE - 7

ANALYSIS OF MARKETING ASSISTANCE
July 1,1991 through June 30,1993

TYPE OF SERVICE	NO. OF COMPANIES
Test Marketing Outside the U.S.A.	120
Providing U.S. Market Information	76
Producing Brochures	72
Test Marketing in the U.S.A.	63
ABLE Studies	14
Other Promotional Tools	11
Market Research	09
Trial Order Shipments	09
Consultancies	07
Total	381

TABLE - 8

PROMOTIONAL ACTIVITIES
July 1,1991 through June 30,1993

QUARTER	CLIENT VISITS	BRIEF INFO. REPORTS.	PUBLIC SPEAKING	TRADE ASSO. VISITS	NEWS LTRS	SEMINARS	ADVERTIS/ PUBLICITY	MULTI CO. DIAGNOSTICS
91/3	76	18	04	10	-	01	-	-
91/4	199	16	04	16	01	02	08	01
92/1	200	47	06	13	-	01	12	01
92/2	156	33	02	12	-	-	02	-
92/3	173	13	-	04	-	01	06	-
92/4	101	11	02	-		03	01	-
93/1	111	21	05	03	-	01	02	
93/2	73	09	02	01	-	-	03	-
Total	1089	168	25	59	01	09	34	02

TABLE - 9

CLIENT VISITS
July 1,1991 through June 30,1993

QUARTER	NEW CLIENT VISITS	REPEAT VISITS	TOTAL VISITS	BUDGET
91/3	73	03	76	40
91/4	189	10	199	40
92/1	151	49	200	40
92/2	109	47	156	60
92/3	124	49	173	90
92/4	56	45	101	90
93/1	65	46	111	90
93/2	34	39	73	120
Total	801	288	1089	570

TABLE - 10

SUB-GRANT ANALYSIS
July 1,1991 through June 30,1993

QUARTER	NO. OF SUB-GRANT RECIPIENTS	SUB-GRANT VALUE (US$)	AVERAGE SUB-GRANT (US$)
91/3	15	230,195	15,346
91/4	79	1,766,381	22,359
92/1	43	650,978	15,139
92/2	27	599,399	22,200
92/3	26	670,042	25,771
92/4	18	300,210	16,678
93/1	05	50,113	10,023
93/2	02	37,012	18,506
Total	215	4,304,330	20,020

TABLE - 11

SUB-GRANT APPROVALS/DISBURSEMENTS
July 1,1991 through June 30,1993

QUARTER	APPROVALS (US$)	DISBURSEMENTS (US$)
91/3	147,035	-
91/4	449,460	-
92/1	476,107	12,734
92/2	465,488	118,691
92/3	1,058,263	141,511
92/4	957,787	687,938
93/1	286,163	245,901
93/2	694,718	463,740
Total	4,535,021	1,670,515

TABLE - 12

VALUE ADDED				
	BASE YEAR	YEAR 1	CHANGE (RS)	% CHANGE
Beneficiary Level Macro Level	1,026,776,012	1,120,232,631	93,456,619	9.10%

Notes :
Value addition for beneficiaries has been computed on the basis of 48 clients who have submitted both base year and year one statistics.

TABLE - 13

OUTPUT VALUES				
	BASE YEAR (RS)	YEAR 1 (RS)	CHANGE (RS)	% CHANGE
Beneficiary Level	1,801,334,274	2,376,197,149	574,862,875	32%

Note :

Output value has been computed on the basis of 48 clients who submitted both base and current year statistics.

TABLE - 14

SALES IMPACT

	BASE YEAR (RS)	YEAR 1 (RS)	CHANGE (RS)	% CHANGE
Beneficiary Level				
Total Sales	2,001,741,005	2,905,708,350	903,967,345	45%
Domestic Sales	1,669,324,718	2,235,549,424	566,224,706	34%
Export Sales	332,416,287	670,158,926	337,742,639	102%
Macro Level				
Export Sales	84,378,000,000	110,052,000,000	25,674,000,000	30%

Notes :

1. For purposes of comparison and practicality, above information is only in respect of clients who have submitted both base year and year one statistics.
2. Impact on export sales will be more evident in year two. Year one was more of a period of market identification and test marketing.

TABLE - 15

FINANCIAL STRUCTURES

	BASE YEAR (RS)	YEAR 1 (RS)	CHANGE (RS)	% CHANGE
Beneficiary Level				
Capital	298,582,895	346,324,623	47,741,728	15.99%
Current Assets	958,999,938	4,828,391,368	3,869,391,430	403.48%
Current Liabilities	738,235,432	4,265,940,004	3,527,704,572	477.86%
Net Current Assets	220,764,506	562,451,364	341,686,858	154.77%
Fixed Assets	824,116,059	1,592,019,834	767,903,775	93.18%
Investments	127,032,701	240,171,723	113,139,022	89.06%
Net Assets	951,148,760	1,832,191,557	881,042,797	92.63%
Macro Level				
Capital Formation	84,206,000,000	99,507,000,000	15,301,000,000	18%

Note :
Beneficiary Level information is based on 48 companies who submitted both base and current year statistics.

TABLE - 16

EMPLOYMENT IMPACT

	BASE YEAR (#)	YEAR 1 (#)	CHANGE (#)	% CHANGE
Males	2718	4754	2036	75%
Females	1484	2258	774	52%
Total	4202	7012	2810	67%

Note :
Beneficiary Level information is based on 48 companies who submitted both base year and current year statistics.

TABLE - 17

VALUE AND SOURCE OF RAW MATERIAL

	BASE YEAR (RS)	YEAR 1 (RS)	CHANGE (RS)	% CHANGE
Beneficiary Level				
Total Purchases	750,742,120	1,874,500,787	1,123,758,667	150%
Local Purchases	300,840,102	909,345,602	608,505,500	202%
Purchases from the USA	52,360,637	220,716,854	168,356,217	322%
Purchases from Non-US	397,541,381	744,438,331	346,896,950	87%
Total Imports	449,902,018	965,155,185	515,253,157	115%
Macro Level				
Imports	127,839,000,000	142,932,000,000	15,093,000,000	12%

Note :
Beneficiary Level information is based on 48 companies who submitted both base year and year one statistics.

TABLE - 18

POST-PROJECT REVIEW SUMMARY
IESC/TA EIGHT ACTIVITIES
(January 1992/July 1993)

Category & Criteria	Response: Yes	No	N/A
A. Financial Impact			
1. Profits increased in post period	6	2	
2. Sales increased in post period	6	1	1
3. Unit costs were reduced	7	1	
4. Capital investments improved	5	3	
B. Human Impact			
1. Additional jobs created	6	2	
2. Employee skills improved	7	1	
3. Employee productivity increased	7	1	
C. Marketing/Operational Impact			
1. Plant operations improved	7	1	
2. Production increased	5	3	
3. Product quality improved	5	2	1
4. New products increased	5	1	2
5. New Marketing programs developed	5	2	1
D. Other Impacts			
1. Management system strengthened	5	3	
2. U.S. business ties strengthened	5	2	1
3. Use of local supplies increased	5	2	1
4. Earnings/savings of foreign exchange	2	5	1
5. Exports to U.S. increased	1	7	
6. Exports increased	2	5	1
7. Imports from U.S. increased (equipment etc.)	3	4	1

TABLE - 19

SECTOR GROWTH RATES AND TIPS 48 FIRM POST-ASSISTANCE ONE-YEAR RESULTS				
Sector Category	Growth Rates (%)		TIPS Client Growth Rate	
	1991	1992	# of firms	Rate (%)
Gems & Jewelry	- 21.6%	27.7%	6	124.5%
Leather Products	341.4	422.7	1	81.0
Steel Products	- 37.2	33.4	1	22.8
Stone Products	83.3	9.1	2	163.3
Rubber & Plastics	7.3	81.3	5	94.2
Chemical Products	37.5	130.3	3	101.8
Electronic Products	187.8	102.3	6	241.2
Electrical Products	22.0	37.9	3	153.8
Confectioneries	88.8	66.7	1	76.3
Mining/Granite	85.2	-100.2	1	0.0
Value Added Tea	- 16.6	- 28.3	2	245.9
Boats & Craft	0.0	122.5	1	0.0
Food Processing	- 1.5	11.6	5	83.4
Fruit & Spices	- 2.5	3.8	2	127.7
Toys (Wood Crafts)	103.5	- 28.6	4	112.4
Graphite Products	- 43.2	- 26.8	1	79.2
No Sector Data or Unclassified	Unk	Unk	4	81.1

Source: Institute of Policy Studies; Growth expressed in gross sales income normalized to SDR and percent change annually. All data are in current rupees or dollars as baselines. The 48-firm study reflects a variety of post-one-year ending dates, from November 1992 to March 1993, thus not directly comparable to any specific sector year. Data presented for directional changes and general magnitudes. The 0% changes for two clients relate to cases where joint ventures were being sought as the primary assistance, and neither these nor company sales have occurred.

APPENDIX B

INTERVIEWS AND SITE VISITS BY THE EVALUATION TEAM

There are three sections included in Appendix B. The first reflects briefings and interviews in the United States by the evaluation team leader as a preliminary phase prior to going to Sri Lanka. The second section lists those who were in meetings specific to the evaluation, including AID, TIPS, MIST, and constituents from other donors or agencies working in Sri Lanka. The third is a list of principals, owners, and key employees of client firms.

The constituent list is not complete as it does not capture the attendance of all persons who participated in the final week's round-table discussion, the GSL/MIST briefing, or the exit presentation. Each of the three meetings had approximately 30 people in attendance. The client list does not represent all individuals who were involved in site visits or interviews, such as middle managers and shop-floor employees who contributed to the evaluation.

INTERVIEWS AND SITE VISITS

BY THE EVALUATION TEAM

Preliminary Interviews & Briefings, United States

Wilma Bieler, Controller, I.E.S.C.

Thomas A. Brown, Vice President Finance, I.E.S.C.

Thomas S. Carroll, President, I.E.S.C.

Thomas Johnson, Technical Resources, U.S.A.I.D./Asia Bureau, Washington, D.C.

Anne T. Kellett, Project Assistant, T.I.P.S./U.S.

Karen M. Muir, Project Officer, T.I.P.S./U.S.

Robert Proven, Treasurer, I.E.S.C.

Edward D. Schwarz, Project Assistant, T.I.P.S./U.S.

Christina M. Shannon, Project Assistant, T.I.P.S./U.S.

Richard H. Shiver, Vice President for N.I.S., Baltics, and Asia, I.E.S.C.

Harvey W. Wallender III, Director of Marketing & Business Services, I.E.S.C.

Edmund Wise, U.S.A.I.D./Private Enterprise Bureau, Washington, D.C.

Constituent Interviews & Briefings, Sri Lanka

Patrick Amarasinghe, President of the Federation of Chambers of Commerce & Industry, Colombo, Sri Lanka

Roberto Bentjerodt, Resident Representative, The World Bank, Colombo, Sri Lanka

Keith D. Bernard, Director of Monitoring & Evaluation, T.I.P.S./Sri Lanka

Richard M. Brown, Mission Director, U.S.A.I.D./Sri Lanka

Sujeewa De Alwis, Director of Project Development, T.I.P.S./Sri Lanka

W. C. Deerasekera, Director/Programs, Ministry of Industry, Science and Technology

Ranjit Fernando, Director, National Development Bank Sri Lanka

K. Gunaratnam, Chairman, Sri Lanka Export Development Board

Stephen J. Hadley, Project Officer, U.S.A.I.D./Sri Lanka

Sanath C. Jayanetti, UNDP/UNIDO Project, Ministry of Industry, Science and Technology

Amarananda S. Jayawardena, Deputy Governor, the Central Bank of Sri Lanka

Jon D. Lindborg, Private Enterprise Officer, U.S.A.I.D./Sri Lanka

S. Omar Z. Mowlana, Director of Project Development, T.I.P.S./Sri Lanka

Lorne G. Olsen, Chief Executive Officer, T.I.P.S./Sri Lanka

Austin Perera, Secretary, Ministry of Industry, Science and Technology

Arnold Perera, Director of Grants Administration, T.I.P.S./Sri Lanka

Alex Ponweera, Director of Grants Administration, T.I.P.S./Sri Lanka

Moksevi R. Prelis, Chief Executive, Development Finance Corporation of Ceylon

James W. Robertson, Centre for International Economics, Colombo, Sri Lanka

Luxman Siriwardena, Director/Investment Division, Ministry of Industry, Science and Technology

Quintus Suriaratchie, Senior Director, Technical Assistance Program, I.E.S.C./Sri Lanka

Nissanka Weerasekera, Private Enterprise Officer, U.S.A.I.D./Sri Lanka

T.I.P.S. Client Site Visits & Interviews

Mario De Alwis, Managing Director, MA's Tropical Food Processing Ltd.

G. P. N. Aponso, Director of Quality Assurance, Esjay Electronics (Pvt) Ltd.

Charles T. Atapathu, Proprietor, A'Bolit Lanka (Development Links Lanka)

Azaari Cader, Executive Vice President, Stone 'N' String (Pvt) Ltd.

Mrs. N. Candappa, Production Director, Sithara Limited

Husain Dawoodbhoy, Managing Director, Tea House (Pvt) Ltd.

Erwin B. Delson, IESC/VE for Hemas Marketing (Pvt) Ltd.

Husein Esufally, Director, Hemas Marketing (Pvt) Ltd.

Jayantha Fernando, Founder & Proprietor, Jaya Hastha Karmantha Ayathanaya Woodcrafts

Amitha Gamage, Managing Partner, Amaran Gems and Lapidaries

K. Dhammika Gunaratne, Managing Director, Daintee Limited

Janaki Gunawardena, Senior Director, Taos Yacht Company, Ltd.

Ranjith Gunawardena, Director, Taos Yacht Company, Ltd.

Gamini Herath, General Manager, Midland Retreads (Pvt) Ltd.

J. M. S. Jayasinghe, Director/Technical, Kelani Cables Ltd.

Palitha B. Jayatissa, Managing Director, Midland Retreads (Pvt) Ltd.

James W. Kelly, IESC/VE for Richard Pieris & Company, Ltd.

Warren J. Mindheim, IESC/VE for Walker Sons & Company, Ltd.

Nirmal Madanayake, Managing Director, Ceylon Pencil Co., Ltd.

Ian Pieris, Managing Director, Richard Pieris & Company, Ltd.

Wimal Rupasinghe, Managing Director, Srinko Enterprises (Pvt) Ltd.

Mohideen Saheed, Executive Vice President, Stone 'N' String (Pvt) Ltd.

P. Nimal Subasinghe, Chairman, SSS Electric Lamps (Pvt) Ltd.

Siri Samarakkodu, Managing Director, Esjay Electronics (Pvt) Ltd.

Jayantha Weerasekera, Director Finance, Kelani Cables Ltd.

C. L. Wickremesinghe, Managing Director, Sithara Limited

Gemunu M. Wijeywardena, Managing Director, Suzuki Granite Exports (Pvt) Ltd.

Chandra Wijeyawardena, Chief Executive, Suzuki Granite Exports (Pvt) Ltd.

Lalit de S. Wijeyeratne, Director, Aitken Spence & Company, Ltd. Enterprise Management

M. N. M. Yakooth, Managing Director, M.I.M. Naleen Hajiar & Company (Pvt) Ltd.

APPENDIX C

INTERIM EVALUATION WORK PLAN & METHODOLOGY

CHECCHI AND COMPANY CONSULTING, INC., WORKPLAN

FOR

THE INTERIM EVALUATION OF THE TECHNOLOGY INITIATIVE FOR THE PRIVATE SECTOR (TIPS) PROJECT

Contract No. AEP-0085-1-00-3003-00
Delivery Order No.7

1.0 Purpose of Evaluation

The interim evaluation will provide to USAID and the Government of Sri Lanka (GSL) an assessment of the TIPS project, indicating its overall achievements, success, and impact. The evaluation will provide recommendations to improve the project's effectiveness and its impact on private sector development.

The interim evaluation also provides an early opportunity to identify constraints that must be addressed, activities that could enhance project effectiveness, and constructive refinements for operations throughout the project's life. Evaluation team members will work within the conceptual framework of a collaboration with USAID/Sri Lanka and IESC to achieve optimal beneficial results.

2.0 Evaluation Requirements and Tasks

There are three general requirements for the evaluation. These are:

1. Empirical results must be provided that validate the project's activities and effectiveness to date;
2. Conclusions must be delineated together with interpretations and judgments by the team;
3. Recommendations must be made, related to questions proposed in the formal statement of work and to issues that may arise during the evaluation.

The evaluation team will conduct itself to address six specific tasks within the scope of work. In summary, these are:

1. Preparatory Work. Prior to departure, the team leader will become familiar with the TIPS project and assemble the necessary materials and literature on TIPS. This will be complemented by interviews with IESC/Stamford and USAID constituents. Prior to the seventh day of the contract, a Workplan will be developed, and the team leader will initiate contact with the team Research and Evaluation Specialist in advance of arriving in Sri Lanka.

2. Assess Project Achievements. Project achievements will be assessed from TIPS initiation in 1991 to the present, based on monitoring indicators in the Project Paper and IESC Annual Workplans. Empirical data derived from the IESC monitoring and evaluation system will be verified, qualitative and quantitative results tabulated, and a comparative analysis of results with expectations stated in the Logical Framework prepared.

3. Evaluate the Effectiveness of IESC. Although vague, this task suggests a summation of both qualitative and quantitative conclusions drawn from evaluation of specific TIPS components, TIPS/US, and Sri Lanka operations, collective results to date, and future project plans.

4. Evaluate the Effectiveness of TIPS Components. The evaluation will focus on each of three project components specified by the USAID/IESC Cooperative Agreement. These include: 1) the **Technology Promotion Program;** 2) the **Technology Grants Program;** and 3) the **Technical Assistance (VE) Program.** In addition, and implicit from the Statement of Work list of issues and questions, the team will address, 4) the **U.S. Office for Promotion and Follow-up,** and 5) the **MBS Monitoring and Evaluation System.**

5. Identify Obstacles and Solutions. The team will identify obstacles that constrain progress or threaten project initiatives, then propose solutions for minimizing these obstacles or adapting activities to circumstances.

6. Identify Opportunities. The team will identify opportunities for the TIPS project to expand its activities, thus enhancing assistance and its impact on private sector development in Sri Lanka.

7. Prepare Briefing and Reports. Various deliverables are required, with periodic briefings and reports, enumerated in the Workplan schedule.

3.0 Issues and Questions for Evaluation

The Statement of Work has established nine categories of issues, each with an array of questions in paragraph form. These are summarized and listed here under the categories for specific attention during the assignment.

3.1 - Impact

1. To what extent have the TIPS Project goals and objectives been achieved (i.e.: How do results compare with intentions stated in the Logical Framework and the Project Paper)?

2. What impact has the TIPS project had on: a) improving international competitiveness; b) improving employment in the private sector; and c) acquiring and mastering new technologies?

3. To what extent have business attitudes and behavior changed among managers of beneficiary firms relevant to making technological improvements and improving their organizations' performance?

3.2 - Relevance

1. In light of current economic conditions in Sri Lanka and GSL's development objectives, are the aims and objectives of TIPS relevant?

2. Has IESC (all components) provided beneficiary firms with assistance that is relevant to clients' perceived needs?

3. Is there evidence to suggest that beneficiary firms would have carried out technological improvements without TIP's assistance?

4. Is the assistance provided to the GSL Ministry for Industries, Science and Technology (MIST) relevant, and what is the likely impact?

3.3 - Strategic Framework

1. How appropriate is TIPS within USAID's overall strategic objectives framework?

3.4 - Sustainability

1. Is there evidence to suggest that achievements experienced under the TIPS project can be sustained after planned intervention assistance ends when the five-year TIPS project is completed?

2. If the momentum of private sector development can be maintained beyond the life-of-project, is the design of a five-year temporary project effective? If momentum is unlikely to maintained, what assistance could USAID consider as appropriate for long term sustainability?

3.5 - Performance of IESC

1. To what extent has IESC been effective and efficient in providing assistance to private sector firms? As a corollary, what can be said about the extent to which IESC has been receptive to, and cooperative with, client firms?

2. How effective is the IESC Technology Promotion Program in meeting its stated objectives?

3. How effective is the IESC Technology Grants Program in meeting its stated objectives?

4. How effective is the Technical Assistance (VE) Program in meeting its stated objectives?

5. What is the role of the U.S. Office for Promotion and Follow-up, and has it been effective in fulfilling role expectations?

6. Is the IESC Monitoring and Evaluation system useful and effective? What is its status, and how can it be improved?

7. In what ways could IESC better serve its clients in Sri Lanka?

3.6 - Targeting of Firms

1. Considering that TIPS was designed to purposely avoid targeting any particular type or size of firm for assistance, is this approach correct?

3.7 - Gender Concerns

1. Is there evidence that TIPS resources are reaching women-owned firms to expand opportunities in export-oriented companies?

2. How does IESC address gender considerations for project assistance?

3.8 - Lessons Learned

1. What are the principal lessons learned from TIPS to date?

2. What conclusions and recommendations can be drawn from the lessons learned?

3.9 - Opportunities to Expand TIPS

1. Is it advisable to expand TIPS by adding to the project more assistance funds from USAID?

2. What opportunities exist to expand TIPS through funding by donors other than USAID, and through funds allocated by the Government of Sri Lanka?

4.0 Evaluation Methods and Procedures

The evaluation team will research existing documents, conduct interviews, utilize IESC monitoring and evaluation information, and initiate a study of client firms to address the questions listed above. These methods are briefly designed below:

1. Initial Research Documentation. The team leader will collect appropriate reports, files, and project materials prior to departing the US. The Research and Evaluation Specialist will assemble appropriate references on macro-economics, industry structure, trade policies, GSL mandates, and other relevant data for Sri Lanka during the first contract week.

2. Extended Research Documentation. During the evaluation project, various reports and documentation will be jointly identified by the team, USAID, and IESC. These will include non-sensitive materials provided by USAID and IESC on TIPS contracts, project plans, periodic reports (by component), press files, GSL policy statements and reports related to TIPS and private sector development, and reports or advisories from donors outside USAID. In addition, the team will access client files, ABLE reports, VE reports, and MBS data. Specific analyses generated through the IESC monitoring and evaluation system should be prepared for validation of measurements related to performance criteria.

3. Initial Interview. The team leader will conduct interviews with IESC/US principals and TIPS staff in Stamford, Connecticut, and USAID personnel prior to departure.

4. Comprehensive Interviews. The team will meet with USAID/Sri Lanka staff, IESC/Sri Lanka staff, and GSL (MIST) officials as soon as possible on arrival in Sri Lanka to establish evaluation mandates. Subsequent meetings will be schedule as required by the interested parties. Field interviews and site visits will form the core of assessment and will include:

   a. USAID/Sri Lanka staff;
   b. IESC staff and in-country volunteer executives;
   c. TIPS Advisory Committee;
   d. Constituents from MIST, the Export Development Board, and Commercial Banks involved with TIPS;
   e. Representatives from the World Bank, IMF, ADB, and bilateral donors;
   f. Independent observers who could contribute useful information to the evaluation including those involved in commercial finance, trade, policy initiatives, education, and consulting;
   g. Private sector firms drawn from a representative cross section of TIPS clients to include those who have participated in, or been assisted by, TIPS projects. If possible, the team will interview principals from firms that have been denied assistance or that have withdrawn, terminating relationships with TIPS.

5. Comparative Field Study. The team has been asked to complete a field study to compare performance between TIPS assisted firms and similar Sri Lankan firms that have not received assistance. The Statement of Work specifies five firms in each category with similar size, products, markets. This requires a comparative analysis of direct competitors where information is likely to be derived through interviews, company data, and observations. The team is concerned that such a study may be difficult and have marginal results because competitors are unlikely to reveal information that could be detrimental to their interests, and although TIPS clients may be willing to cooperate, others may not. However, the team will attempt to develop a field study model and seek ways to achieve a comparative study to validate TIPS project impact *vis a vis* non-participating companies.

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