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Garment Industry Productivity Center, Cambodia

Final Report

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Final Report

Acronyms

ACILS	American Center for International Labor Solidarity
AFTEX	Asian Federation of Textile Industries
BFC	Better Factories Cambodia (a program of the ILO)
CAMFEBA	Cambodian Federation of Employers and Business Associations
CGTC	Cambodia Garment Training Center
COP	Chief of Party
CSDC	Cambodia Skills Development Center (NGO organized to succeed GIPC)
CTO	Cognizant Technical Officer
EIC	Economic Institute of Cambodia
FOB	Free on board; a manufacturer who obtains materials, makes and ships
GIPC	Garment Industry Productivity Center
GMAC	Garment Manufacturers Association in Cambodia
IFC	International Finance Corporation
ILO	International Labor Organization
JICA	Japan International Cooperation Agency
JODC	Japan Overseas Development Council
M&E	Monitoring and evaluation
MOC	Ministry of Commerce
MOLVT	Ministry of Labor and Vocational Training
MPDF	Mekong Private Sector Development Facility
NGO	Nongovernmental organization
NPIC	National Polytechnic Institute of Cambodia (part of MOLVT)
TAF	The Asia Foundation
TAFtc	Textile and Fashion Industry Training Center (Singapore for-profit group)
UNDP	United Nations Development Program
WTO	World Trade Organization

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Executive Summary

Established in the late 1990s, Cambodia's garment sector employed 250,000 and represented 14 percent of the country's economy by 2005. The sector rose to prominence under the system of quotas that had controlled world trade in textiles and apparel, by earning special market access to the United States for implementing progressive labor policies. Textiles were integrated into the WTO in 2005, ending quotas and the Cambodian industry's greatest competitive advantage. The livelihoods of the workers directly and indirectly supported by the industry and the country's economic stability were at risk.

In October 2005, USAID/Cambodia initiated a three-year, $3.4 million contract for the Garment Industry Productivity Center Project (GIPC), extending the contract on a no-cost basis until January 31, 2009. The objective of the project was to improve the competitiveness of Cambodia's garment industry in global markets and to expand its economic impact. USAID identified productivity as a concern of employers and government, and created a Statement of Work with three tasks:

- Establish a sustainable training and consulting center to improve productivity and manufacturing skills in Cambodia's garment industry.
- Deliver training and consulting services to industry supervisors and middle management, and develop Cambodians as trainers and consultants for the center.
- Provide technical support to improve the competitiveness of the industry by addressing needs for workforce development, industrial relations, public-private sector cooperation, and encourage diverse investment based on economic good governance.

Implemented by Nathan Associates Inc., with the technical support of Werner International, Inc., and AIRD, Inc., GIPC's approach was based on consultation and technical excellence. The Garment Manufacturers Association in Cambodia (GMAC) became a key partner, and other stakeholders from international organizations, government, labor, the private sector, and donors were consulted to validate and refine strategy. A Center Advisory Committee, volunteers representing the factories, government, and other interested parties such as the International Labor Organization (ILO) and the Cambodian Federation of Employers and Business Associations (CAMFEBA), contributed to many early decisions.

The Project Team defined the GIPC's business as providing training and consulting services whose effectiveness is measured by tangible improvements in productivity; it was also agreed that the Center would follow a business model that included fee for services as essential to achieving sustainability. While operating its business, GIPC helped stakeholders better

understand and address Cambodia's competitive challenges by providing research studies, building capacity, and developing communication channels between institutions and the private sector.

The Project Team also concentrated on tasks related to workforce development and good governance, creating new relationships between employers and educators and between employers and jobseekers. Universities are now incorporating materials relevant to the industry in their business and economics curricula, and attracting students who have considered industrial work undesirable but whose management and engineering skills are critical to a sustainable industry and a growing economy. In building its own connections to the business community, GIPC also created opportunities for stakeholders to meet and exchange their views, and to generate actionable ideas and strategies for the future of manufacturing in Cambodia.

Over the life of the project, the Center added more than $13 million to the Cambodian economy by raising factory productivity. Only a third of the client factories raised productivity as gauged by the conservative metrics used by GIPC's technical experts, but the adoption of better management practices—such as in-factory training and industrial engineering—are improving the industry in ways that may not be measured in the short term. Though expatriates dominate Cambodia's garment industry, 80 percent of GIPC trainees were Cambodians and young women—and more than 50 percent reported income gains and 95 percent better job performance attributable to the training. In delivering services, GIPC earned more than $90,000 as a capital base for its own sustainability.

Despite the cushion of earnings, sustainability remains the Center's greatest challenge. Registered at the end of the contract as a Cambodian entity with a local director and Board, GIPC is now accountable for its own expenses. New revenue streams are being developed, including through small and medium enterprises and other industries. However, with the economic downturn contributing to the other business issues, the Project Team is grateful to USAID/Cambodia for its decision to continue support for the Cambodian successor to the GIPC project for another two to three years.

1. Introduction

This is the final report on activities under Contract PCE-I-00-98-00016-00, Task Order 30, implemented between October 2005 and January 31, 2009 by Nathan Associates Inc. and two subcontractors, Werner International, Inc. and AIRD, Inc.

BACKGROUND AND OBJECTIVES

The garment industry has been Cambodia's most successful industry. Established in the late 1990s, it grew rapidly under the system of quotas that had been restraining global textile trade for 30 years and it earned generous quota allocation from the United States for implementing progressive labor policies. By 2005 the industry employed more than 250,000 workers, most poorly educated young women. It now employs more than 350,000, and represents nearly 15 percent of the economy and 80 percent of export earnings, amounting to more than $2 billion per year.

The end of the quota system in 2005 marked a fundamental shift in apparel markets and left the country particularly vulnerable. More than 90 percent of production capacity in Cambodia belongs to multinational foreign investors who can redirect production should Cambodia no longer offer market advantages. And while Cambodia's high labor standards, verified by an ILO monitoring program, established a model of good governance and encouraged some buyers to favor Cambodia, it also created costs that competitors have avoided. For example, the rights of freedom of association caused a proliferation of unions—more than 1,000 or approximately 3 per factory, and some factories have as many as 12 different unions. Industrial relations are complicated by competition among unions for influence with the workers in each factory, and by the different representatives with whom managers must negotiate.

Concerned about the economic repercussions of the end of quotas, USAID/Cambodia commissioned a study to clarify issues and benchmark ways to improve the competitiveness of the garment industry. That study identified labor productivity and a general lack of training in production and the technical aspects of management as weaknesses not addressed by other donors and programs (*Measuring Competitiveness and Labor Productivity in Cambodia's Garment Industry*, Nathan Associates Inc., June 2005). USAID then solicited proposals for productivity training and technical training in Cambodia.

The project, awarded to Nathan Associates, was designated the Garment Industry Productivity Training Center and its objectives were straightforward:

- To improve the competitiveness of Cambodia's garment industry by creating a training center that will develop *competitive strategies* and *implement plans for outreach training programs and best practice management systems.*
- To expand the economic impact of the garment sector and have it be a model for other industry clusters.

In addition to the technical focus, the Statement of Work defined a broader perspective of competitiveness contributions, distinguishing the project from other donor activity in the sector. The team was given wide discretion in designing activities so long as those activities contributed to the future of Cambodia's economy as well as its present economic performance. The objective was to implement strategies that could be replicated in other sectors or industries, improving the climate for diversified investment and demonstrating the potential for economic growth based on good governance principles.

The Task Order charged the project team with three tasks: (1) establish a sustainable center for productivity improvement and manufacturing skills; (2) provide consultancy and training services to the industry; and (3) provide technical assistance to improve the ability of the garment sector to formulate strategy, identify and develop products that can compete globally, and provide a vision of good governance to further the productivity and prosperity of Cambodian garment and other manufacturing industries.

PROJECT STRATEGY

The garment industry is Cambodia's leading industrial employer and a nexus for the programs of international donors, nongovernmental organizations, and others concerned with economic development. Thus, the launching of the GIPC was preceded by discussions with industry stakeholders and collaborators, including donors and other implementing organizations to clarify what other stakeholders were doing, to define priorities, and to identify partners and allies.

In meetings with, among others, the Garment Manufacturers Association of Cambodia (GMAC), the ILO and its Better Factories Cambodia Program, the American Center for International Labor Solidarity (ACILS), the Asia Foundation, the International Finance Corporation (IFC) and its Mekong Private Sector Development Facility (MPDF), the Cambodia Garment Training Center (CGTC), and the Economic Institute of Cambodia (EIC) the team verified the findings of the initial scoping study and defined three areas of activity in which a GIPC could contribute to competitiveness within the scope of the Statement of Work:

- Technical training and consulting to improve production skills.
- Workforce development and linkages between employers and labor markets.
- Industrial relations, strengthening dialogue mechanisms and establishing a common understanding of productivity and competitiveness.

As a consequence of the GIPC's dual mission to provide services and to establish a sustainable business model, all activities were evaluated for their contribution to skill development in the industry (or to other competitiveness initiatives) or for revenue potential. Both criteria were usually applied.

Technical studies provided a foundation for GIPC initiatives. For example, a workforce assessment and a study of educators' course content formed the basis for workforce development and curriculum initiatives. A factory value chain analysis contributed not only to the general understanding of the competitive challenge facing Cambodia's garment industry, but also established a common vocabulary that facilitated discussions among government, employers, and union representatives. These reports have been cited by other stakeholders and researchers and have been consulted by other donor projects, providing congruence to some development efforts.

RESULTS

GIPC succeeded in a number of its initiatives, assisting client factories in achieving significant improvements in productivity using in-house resources and teaching them better methods for production planning and controls. Not all realized the gains the team hoped for, but monitoring and evaluation showed that those *who committed to implementing the system* experienced rapid and significant productivity gains, often greater than 20 percent. More compelling, these gains were based on the improved skills of individuals trained at GIPC. These individuals reported a high level of satisfaction with what they learned and more than half reported professional gains as well.

GIPC trained a team of eight technicians and technical trainers who now teach courses in the three languages prevalent in the industry (Khmer, Chinese, and English) and who have proven adept at coaching workers with little education and no other type of preparation to apply theoretical knowledge in implementing new processes in factories.

It is difficult to measure the results of some of GIPC's other initiatives, but through its activities the team has influenced attitudes and fostered initiatives that have been adopted by the private sector, by educators, and by government; if they are valuable they will be sustained by existing institutions and provide a nucleus for new activities.

REPORT ORGANIZATION

In Section 2 we describe GIPC program management—funding, staffing, and level of effort. In Section 3 we describe program implementation, activities, and results. Section 4 analyzes what contributed to the success of the program, and Section 5 presents lessons learned.

2. Program Management

This section describes the funding, organization, and the allocation of resources to services and materials under the GIPC Project.

FUNDING AND MODIFICATIONS

The initial award for Task Order 30 was made on October 1, 2005, in the amount of US$3,438,000 for a 36-month program. Two modifications were approved during the course of the project. The first was approved September 30, 2006, and obligated funds in the amount of $750,000.

A no-cost extension was approved August 6, 2007, to revise the contract term from 36 to 40 months. The extension was requested because preliminary start-up activities—such as curriculum development and confirmation, the translation of materials into Khmer, and staff recruitment—delayed the offering of technical services through the GIPC until February 2006. The extension allowed GIPC more time to meet sustainability benchmarks in earnings and in technical and business development. The modification that made related adjustments to the budget and level of effort was approved on September 12, 2007. The extension did not require revising the SOW. GIPC managed resources carefully during the third year, concentrating on core skills and developing the Center's business, to make the longer contract term possible.

STAFFING AND LEVEL OF EFFORT

The contract to establish the GIPC was awarded to Nathan Associates Inc. and its subcontractors in the last week of September 2005. Project staff arrived in Phnom Penh in early October to develop the work plan and establish offices.

On the basis of consultation and recommendations of industry leaders and other stakeholders, the project leased space for offices and classrooms in the Mild Seven Building, at 93 Preah Sihanouk Boulevard, Khan Daun Penh, Phnom Penh. Property values rose dramatically in the city over the life of the project and the GIPC was relocated to the suburban Tuol Kok district in December 2008 to reduce operating costs. The new address is #3, Street 62, Sangkat Tuol Sangke, Khan Russey Keo, Phnom Penh.

Key personnel consisted of the Chief of Party, Jane O'Dell; Technical Adviser Heinz Reich; and Project Administrator Norma Simanjuntak. During the 4-month extension, Mr. Giovanni Marello already a contributor, assumed the role of Technical Adviser.

Over the life of the project, Cambodian staff assumed increasing responsibility for office operations and technical services. The key contributor to project management is Ms. Mona Tep, Director, GIPC (recruited March 2007)

Division of Responsibilities

Nathan's sustainability strategy for the project placed the Chief of Party (COP) in Phnom Penh full time during the first year to establish the project and business model, then to develop a Cambodian director for the leadership role. Throughout the project, the COP was responsible for contract administration and the business model (packaging services, accounting, pricing, market analysis and development). As an industry expert, Ms. O'Dell also coordinated activities focusing on competitiveness and good governance, including workforce development.

Ms. Simanjuntak, the Project Administrator, ensured compliance with USAID requirements and trained the office staff in management and administration throughout the project. Mr. Reich, the Technical Adviser, crafted the Center's technical content, deciding on the curriculum and instruction methods, providing materials and information, developing the Cambodian technical staff to be independent technicians, and delivering consulting services.

Other expatriate advisers contributed regularly to the project. Key contributors were economist and workforce development specialist Lynn Salinger, garment industry specialist Peter Minor, and Engineering Specialist Mr. Marello. Mr. P.C. Chooyong, a regional industry specialist, contributed to workforce development, and industry experts Don Feeny, Alain Mathieu, and Jan Urlings of Werner International reviewed technical content and researched value chain issues.

The GIPC Director manages a staff of eight Cambodian technicians; an office manager and accountant, and three support staff including a driver and an office services staff member.

From October 1, 2005, to January 31, 2009, GIPC provided 2,824 person days of professional services as follows:

- 620 days from COP O'Dell
- 595 days from the Technical Adviser Reich
- 474 days from Technical Adviser Marello
- 819 days from Project Administrator Simanjuntak.

Other short-term expatriate contributions:

- 110 days from Peter Minor
- 102 days from Ms. Salinger
- 82 days from Werner International consultants Mssrs. Feeny, Mathieu, and Urlings
- 22 days from Mr. Chooyong, industry specialist

Where necessary and possible, GIPC used local service providers to conduct activities on a short term fixed-fee basis; we estimate that we compensated these colleagues for approximately 3,000 person days.

The contributions of GIPC's local partners—private sector and government leaders and staff—were neither compensated for nor charged to the project budget, but are estimated to be an additional 1,000 person-days over the 40-month life of GIPC.

Management

Ms. O'Dell managed the GIPC, ensuring that the work plan activities addressed the program in the Task Order SOW and that specific activities were presented to the Contracting Technical Officer (CTO) for review. The project was designed to reduce the COP's management time in Cambodia over the life of the project and to maintain rigorous control and compliance with contract requirements and FAR and AIDAR. Project Administrator Norma Simanjuntak maintained the continuity of controls when the COP was no longer a resident. In addition, the project was supported at various times by Nathan Associates' home office staff including Cena Maxfield, Michelle Rodriguez, Alledia Adams, and Matthew Lutkenhouse.

The lead subcontractor, Werner International, Inc., assisted with implementation of the technical program, developing and delivering training and consulting services to the target industry beneficiaries and to GIPC's staff. Mr. Reich, Technical Adviser, supported by Mr. Marello during the final 15 months of the project, was the primary resource. Werner managers Mr. Urlings and Mr. Mathieu, engineer Lorival Rodriguez, and cost accounting specialist Mr. Feeney also contributed their technical expertise to the GIPC.

Local staff, led by Director Mona Tep, handled the daily operations of the GIPC and maintained compliance standards; their role was especially important during the extension when the Project Administrator and COP were both absent from Cambodia for extended periods.

3. Program Implementation and Results

This section describes the context in which GIPC implemented its work plan and activities, how GIPC defined priorities, GIPC's implementation process, accomplishments in each program area, and specific activities. Appendix A summarizes activities and outcomes, showing in detail the project's approach to the technical, organizational, and institutional aspects of the Task Order. Program indicators and results are presented in Appendix B.

IMPLEMENTATION APPROACH AND AREAS

The project team was quite small so remained tightly integrated, with responsibilities diverging by specific objectives rather than following the USAID operational plan. For example, "workforce development" was an operational element for many activities. To align activities to the business of the GIPC as a training center, activities and results were packaged into technical training and services, competitiveness, and good governance areas. Each activity area contributed to the establishment of a sustainable training center. The GIPC's revenue stream is based on the technical services; the governance and competitiveness activities contributed to revenue in a small way but were more important to marketing and to GIPC's "good will" in the community. The performance monitoring benchmarks established for each activity were used to measure organizational development, to track business performance, and to amend the business plan.

Parts of the GIPC business model were based on prior surveys of the industry and the input of stakeholders, but success depended on adapting the model to priorities and opportunities as well as to the capabilities of the project team. The technical content was defined before the work began but the course structure and outreach to the industry needed testing and further exploration. "Goodwill" activities in competitiveness and governance, as well as marketing, were developed on the basis of the research and experiences of the first year. New "products" were added, but essentially the activities in years 2 and 3 built on the foundation laid by the knowledge gained in 2006.

Technical Training and Services

Technical services, as the key to productivity improvements and to sustainable revenue generation for the Center, accounted for the majority of GIPC's investment, and the project was launched with the assumption that the industry would welcome these services. But the factories, the prospective clients, were skeptical of their value. The impact of earlier production management training programs had never been measured, and the programs were discontinued

without results (e.g., the CGTC as operated by GMAC with support from the Japan International Cooperation Agency, or JICA). Factory managers were not eager to invest time or money in unproven methods offered by more foreign experts, and even more cautious in accepting Cambodians as trainers and consultants, which was part of GIPC's operating plan.

None of the project objectives could be met without convincing the market that GIPC's training could improve labor productivity. To overcome that hurdle, GIPC began its activities with a pilot program to test its curriculum and demonstrate impact. Offered at minimal cost, the pilot also provided a laboratory for training the Center's newly recruited technicians.

The pilot project was launched in January 2006, engaging 4 factories in 125 hours of classroom instruction on time and work study, followed by in-factory application of the principles. Planned as a 4-month activity, the in-factory practice continued for 8 months because of delays caused by production variations and order volumes. At the conclusion, 3 of the 4 factories had completed the program and each had measurable improvements—as much as 30 percent—in production efficiency.

To publicize these results, GIPC attracted managers from 50 factories and 30 stakeholders from government and interested organizations and donors to a conference in September 2006, at which our pilot clients shared their results.

The pilot provided

- Support for our claim that training and the introduction of new methods can improve production results;
- The framework in which Cambodian technicians began their training, learning to deliver services to international manufacturers;
- Experience on which to base the allocation of time and resources to training and in-factory remediation, and a guide to the obstacles to achieving improvements;
- A showcase to demonstrate that GIPC's Cambodian staff has technical skills to share, and that trained Cambodian workers can do more advanced jobs in the factory; and
- Confirmation that at least some factories would pay for services.

> GIPC was the first organization [to] raise the productivity issue … NO ONE have ever think directly on productivity… this is truly happening.. .thanks to you and GIPC.
>
> —Mr. Van Sou Ieng, Chairman, GMAC (from his Blackberry)

It also clarified the work required to establish the technical program, define "products" to offer to prospective clients, and the training and development required for the GIPC technicians. Additional details regarding the technical programs can be found in Appendix C.

Workforce Development

While the pilot client group learned the techniques of time and work study, the project team researched workforce development needs, attitudes towards work, skills gaps, and linkages in the employment market. With the leadership of workforce development specialist B. Lynn Salinger,

in mid-2006 GIPC released a study that challenged the common wisdom about industry hiring practices and opportunities. The resulting *Workforce Assessment* (Nathan Associates Inc., 2006) convinced the team of the importance of creating linkages between education (vocational and formal) and the needs of employers in the industry.

Competitiveness

In 2005, the industry's main competitive strategies were to comply with international labor standards and to obtain duty-free status for products exported to the United States. Both were important but limited in their potential to secure Cambodia's position as a stable exporter.

Duty free status required legislation by the U.S. Congress and as such was outside of the control of the industry. GIPC was able to contribute to the policy discussions by sharing information on U.S. trade policy and by bringing U.S. trade experts to Cambodia to meet with the industry. The proposed trade benefits failed to materialize, but did raise Cambodia's profile in U.S. trade policy circles. GIPC also gained credibility for its access to information sources and objective counsel.

Labor standards, supported by ILO activity in Cambodia, were recognized by buyers and helped ensure their commercial presence in Cambodia. Responsible working conditions are integral to GIPC training as a good management practice, and support for the ILO's contributions to monitoring and to healthy industrial relations were explicit in the GIPC SOW. Unfortunately, GIPC learned that labor unrest presented a growing threat to Cambodia's competitiveness.

As an independent and technically oriented entity, GIPC was positioned to provide objective information and build the capacity of union leaders, and to clarify the manufacturers' business challenges in public discussion. Moreover, GIPC was able to draw the parties into non-confrontational discussions based on the new areas of common understanding. In collaboration with USAID partners ACILS (The Solidarity Center) and the ILO, GIPC developed seminars and workshops to familiarize labor leaders with the realities of business including international apparel sourcing criteria, the value chain from design to store, and global competition.

In conjunction with these activities, GIPC was invited to participate in a USAID/Asia Foundation program that brought labor, employers, and government together to discuss competitive strategies. In 2007, GIPC assumed leadership of the group; participation and interest have grown under the Center's stewardship and each quarterly meeting generates open exchanges and, more important, actions the participants agree to support.

> One of the most important things GIPC has done is to bring everyone together, government, unions, employers, to talk together. Without you this would not happen. So I made time to come.
>
> —HE Sok Chenda, Director General, Council for the Development of Cambodia

RESULTS AND NEXT STEPS

Though activities adopted during implementation were adjusted periodically they remained largely on the path created by initial research and testing. After 3 years and 4 months the GIPC is a Cambodian organization, led by a Cambodian director and staffed by skilled Cambodian

technicians. The Center's training is recognized by the garment industry and other stakeholders as the standard for productivity skills. Workers trained by GIPC report growth in income and responsibility and other projects now track results using these indicators. Two other donors have added technical training components based on GIPC's results, and the project assisted four universities in developing an industry-related curriculum. Employers and union leaders meet regularly to discuss industry issues in a forum initiated by GIPC. "Productivity" has become a factor for consideration in industry strategy and in the design and implementation of donor programs. GIPC has also played a key role in competitive strategies, contributing research and organizational strength to public–private dialogue.

While the Center failed to build the cash flow needed for its long-term support during the life of the contract, it did establish a sufficient reserve to ensure its continuation for at least 12 months after the conclusion of the Task Order on January 31, 2009. USAID has agreed to continue supporting the GIPC through a follow-on project (Micro Small and Medium Enterprise/Business Enabling Environment, implemented by DAI, Inc, and Nathan Associates) so has additional time in which to refine its model, adding capability and expanding into other sectors.

Technical Services Results

Since January 2006 GIPC has provided training and consulting services to 46 factories (15 percent of the industry by number, but more than 40 percent by numbers employed). Not all of these factories have implemented new systems; some incorporated parts of the training and a few listened but made no changes. However, over the life of the project,

- Productivity gains of GIPC clients added $13.6 million to the Cambodian economy;
- Clients implementing the quality control system and process reduced defects from more than 30 percent to less than 10 percent;
- The GIPC earned more than $90,000, of which $80,000 has been accumulated as a capital base to sustain activities with the balance used for GMAC/GIPC shared activities;
- GIPC technicians conduct training in four areas of production management, and implement improvements in factories independent of their foreign technical advisers.

These results illustrate that the Center provides valuable service: factories have paid substantial fees and the pilot project participants (and others) returned for additional services. A number of participating factories established industrial engineering departments to improve planning and output. Perhaps most important, the Cambodian technicians are able to offer core training and in-factory remediation programs based on work study, quality management, the training of sewing operators, and production planning and controls without relying on foreign experts and advisers. That is the foundation for a sustainable center for productivity services.

Workforce Development Results

GIPC contributes to the professional growth (job satisfaction, income and responsibility) of participants. GIPC training improved individuals' lives as it raised factory performance.

- Of the 490 individuals trained through the GIPC, 385 (78.5 percent) were Cambodians and 330 were Cambodian women.

- Independent surveys of trainees conducted 3-6 months after training found that 45 percent received promotions or raises and credited GIPC training for their progress.
- More than 95 percent of Cambodians participating in GIPC training agreed that it helped them understand their job and improve their performance.

> Through the training…I discovered how I can improve my work and of my co-workers, I can even apply these concepts in my everyday life.
> —Kuoch Davy, garment industry worker and new supervisor

Foreign workers in Cambodia made it possible for the industry to establish itself and to grow very quickly. They will continue to make contributions to the economy for the foreseeable future but cultural and communication barriers between foreigners and Cambodian workers are obstructing the knowledge transfer that usually accompanies foreign investment in a developing country. After nearly 10 years most of the Khmer workforce remains unskilled or semi-skilled, and expatriates occupy 80 percent of supervisory and management positions (*Garment Industry Salary Survey 2007-8*, HR (Cambodia), Inc., sponsored by GIPC and USAID). Unless the pattern has changed, this will continue to limit knowledge transfer in the factory. In contrast, 95 percent of GIPC trainees report sharing their new skills with others. The Cambodians GIPC trained are now teaching their coworkers better practices.

These results are highly encouraging, but as the GIPC project team talked with industry members and other stakeholders it became apparent that there were other points where the employment market failed to function effectively. The workforce assessment conducted in 2006 highlighted misconceptions that were blocking contact between employers and prospective employees and suggested ways they could be addressed, and the parties brought together for their mutual advantage and that of the industry overall.

- In May, 2007, GMAC agreed to participate for the first time in Phnom Penh's largest job fair with GIPC sponsorship and support; nine factories met educated job seekers and shared information about the industry.
- A local employment research and services firm, HR (Cambodia), Inc., conducted its first survey of jobs and compensation in the garment industry with GIPC support. The survey is a vital tool for an industry in lacking references for setting salaries and challenged to attract qualified candidates.
- Four universities added a course on the garment sector, developed by GIPC, to their business and economics curricula, attracting more than 50 students per class.
- The GMAC is now supporting the development of training to prepare Cambodians for higher skilled jobs in the industry.

Each of these activities has been adopted by the private sector and continues without additional contributions from GIPC or USAID. The GIPC may work with each of them as appropriate to its own business model and objectives, but ownership has passed to the beneficiaries.

Industrial Relations

GIPC was asked by USAID partner ACILS to assist with capacity building for labor leaders during 2006 and 2007, resulting in a four-part program on garment industry economics and competitive challenges presented by GIPC project team members and colleagues. In 2008, the ILO requested that the GIPC train union representatives preparing for collective bargaining in the economics of the industry.

- More than 160 labor leaders participated in training sessions and in post-training evaluation demonstrated a better understanding of competitiveness principles and market forces.
- After a GIPC/USAID sponsored study tour of Vietnam brought industry and labor representatives together to learn from their competition (2007), GMAC and union leaders began meeting quarterly to discuss the state of the market, competitiveness, and issues of mutual concern (other than labor disputes).

> Though GIPC's main mission is boosting of the productivity levels of garment factories in Cambodia, your willingness to extend educational trainings to union leaders…contributed to some level of maturation for the leaders…
>
> —Alonso Suzon, Country Program Director, ACILS

Though the number of labor actions, which have complex causes and reflect employment growth and the proliferation of unions, has not dropped labor leaders have a better understanding of the industry and can represent their constituents' interests more effectively.

SUSTAINABILITY

As mentioned earlier, GIPC did not have specific "sustainability" activities but used project evaluation metrics to determine whether sustainability benchmarks were being reached. These included number of factories served, earnings growth, number of courses offered, and numbers of courses and of trainees.

Each year the indicator of "number of new factories served" was used as to gauge whether GIPC was extending its market. As Figure 3-1 shows, GIPC had more new clients each year; in 2008 it was serving 34 factories. The LOP number of client factories is 46, so the implications for sustainability are very positive. Clients have a positive perception of GIPC, remain interested over time and return for services, and the numbers are still small enough to suggest that additional growth is possible.

Each year the Center also reached income targets set in its business plan, and in each year those targets represented double-digit growth. The current global economic slowdown will challenge the Center's ability to generate income but the current indicators reflected in Figure 3-2 are very positive.

As Figures 3-3 and 3-4 show, the Center offered a growing number of courses to a growing number of trainees. This reflects the ability of GIPC's technical staff to both train workers and implement technical programs in the factories, and offer a variety of classes—as well as growing interest in GIPC training.

Figure 3-1
Number of Factories Served by GIPC, FY2006-FY2008

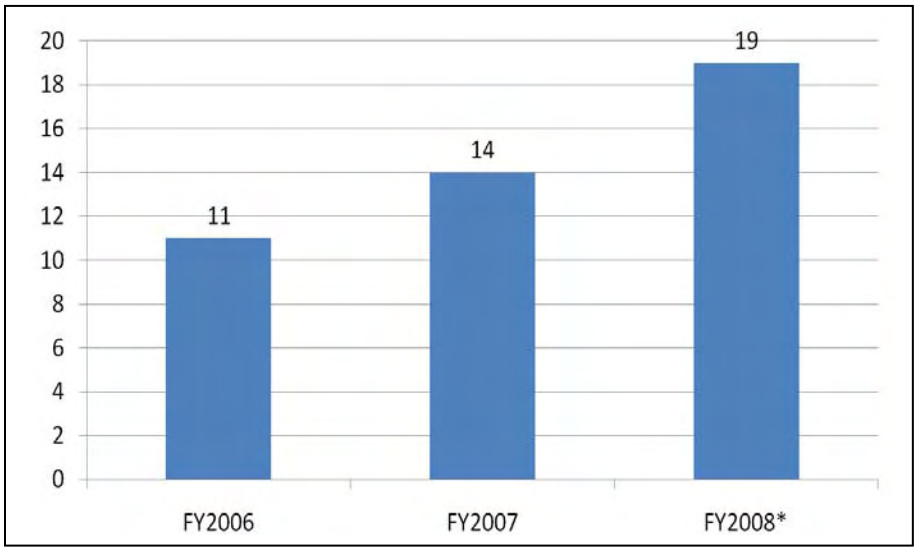


Figure 3-2
GIPC Earnings Growth Year-on-Year (US$)

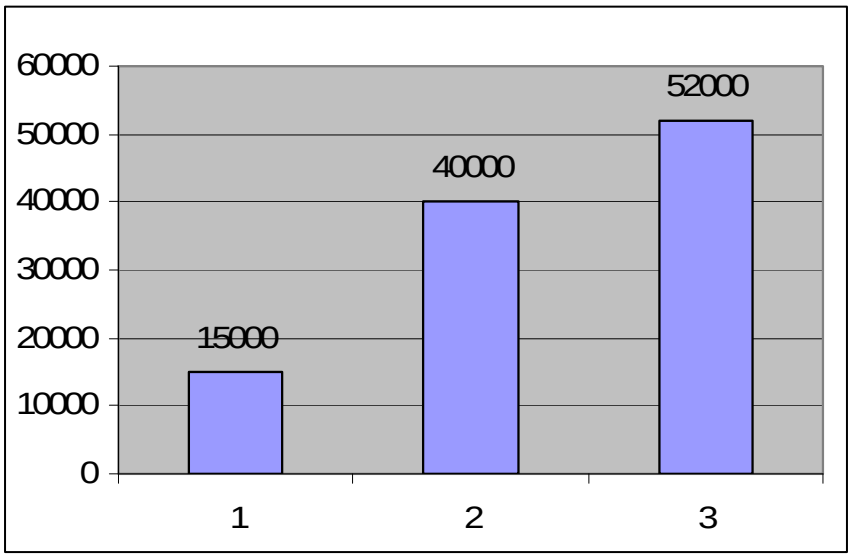


Figure 3-3
Number of GIPC Training Programs by Year

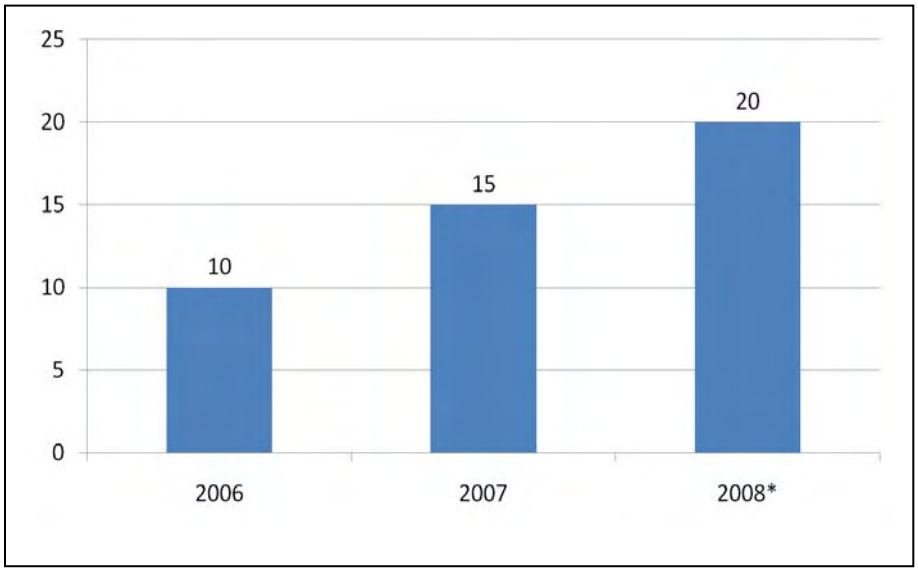
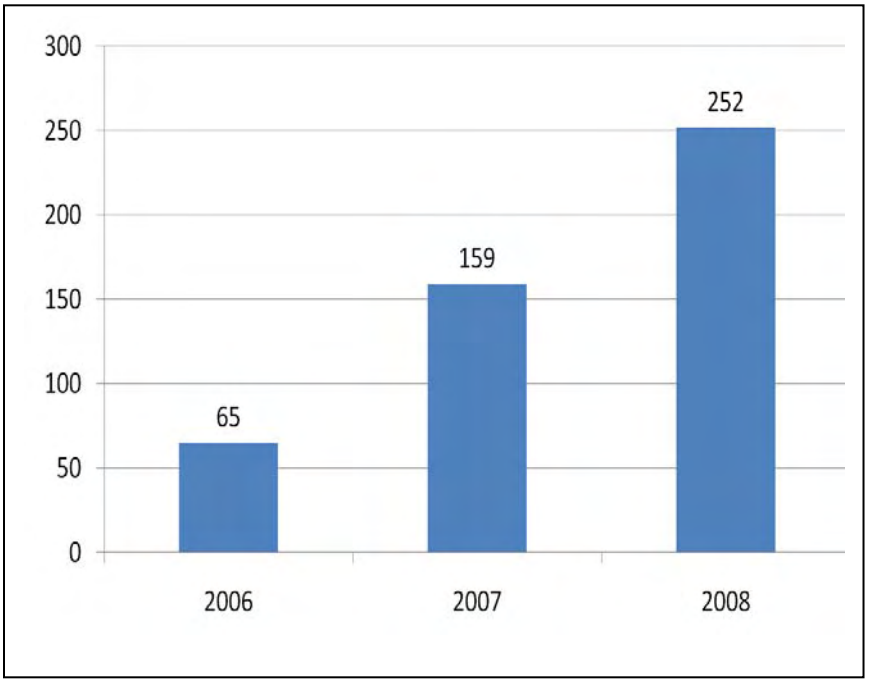


Figure 3-4
Number of Individuals Trained



4. Elements of Success

Three program design elements drove project decision-making and contributed to project successes. These were (1) having the sustainability of the Center as the end goal; (2) basing technical standards on international best practices and adapting them to local circumstances; and (3) subjecting all elements to rigorous monitoring and evaluation.

SUSTAINABILITY OF CENTER AS END GOAL

A popular concept in development projects, “sustainability” usually means that the donor’s investment contributes to objectives beyond the immediate life of a contract or grant, which implies that the project accords with and is valued by local interests and that those interests are able to continue the key activities. Much of GIPC’s work is self-sustaining in that context: knowledge sharing among trainees, improved communication between employers and educators, and capacity growth among union leaders will all continue on the basis of momentum established by the project, and some initiatives will receive financial support from the private sector and from other donors.

In the GIPC SOW, however, “sustainability” referred directly to training in productivity improvement at the supervisory and management levels. With this in mind, the GIPC implementation team relied on the principles of small business operation to create its model. This involved specific actions and decisions undertaken by the COP and other team members:

- Research your market and identify potential clients, confirm their needs and expectations.
- Identify your competitors, their services, and their established market.
- Determine your market niche, focusing on how you can distinguish your products/services from others.
- Develop an action plan that covers product development, pricing, marketing, and service execution.
- Staff the organization with the highest levels of competence consistent with the products and services, and the market.
- Roll out the product(s).
- Evaluate response and adapt as needed.

The GIPC launch was an intensive series of interviews and fact-finding sessions with the industry and other stakeholders and addressed the first two items in the list above. Through those interviews we also determined that the key differentiating factor for our services would be

measurable production results, and that those results would be based on advancing the skills of Cambodians.

Other consulting organizations shared information on their fee structures for the services of Cambodians and of foreign experts. GIPC determined that the fees charged by CGTC and the ILO's Better Factories program were not based on sustainability. GIPC had to become self-supporting, so would have to be competitive and to charge higher fees than others serving the garment industry. However, if the client factories achieved the results projected by the original survey work, they would recover their investment within weeks and would see output and profits continue to grow thereafter. Also, fee-for-service was an element of all training and consulting from the beginning of the project, both to condition the market to the need to pay and to build a reserve against future needs of the GIPC.

The decision to charge fees may have cost the Center some clients; certainly some factories were not interested in investing in training. However, companies that would participate only in free services could not be expected to make a serious effort to implement production improvements. The technical advisers had considerable discretion in visiting and consulting with clients without assessing an hourly charge, which ensured the GIPC clients received value.

The aim of GIPC training and consulting is to improve production management through technical training, planning and information management, not investment in machinery. We encouraged investment in better equipment and raised awareness of higher technology, but overall the factory managers' investment was relatively small. They would also gain the tools for a cycle of continuous improvement.

The technical services plan was to recruit high potential Cambodians with production experience from the industry. In a brief setback, the GIPC team learned that workers with these qualifications did not exist; production supervision and management jobs were occupied, overwhelmingly, by expatriates. The remaining choices were to hire foreign technicians; to hire Cambodians with limited education and some factory experience; or to hire high capacity individuals with no production experience, but other interesting qualifications, and train them. The Technical Adviser took on a tremendous task, educating a teacher, a systems controller, a quality supervisor, and an office clerk. They absorbed the technical material quickly and over three years they, and their colleagues, have become highly respected in the industry for their knowledge and capabilities.

The same problem arose in recruiting a Cambodian director for the GIPC. Facing a dearth of experienced candidates, the COP and CTO agreed to the importance of having a leader who had both enthusiasm and vision. Again, this situation created a steep learning curve, and the COP's role was extended to provide more time for the Director to become familiar with the industry, but the GIPC Director has the entrepreneurial creativity needed for a fledgling enterprise.

The pilot project and follow up conference (see Section 3) brought GIPC to the attention of the industry as a technical training provider. It also provided a compelling story for engaging international buyers in introducing GIPC to their factories.

The job of attracting new clients did not suddenly become easy; in fact, as we learned more about the market and constraints on factories, we found our challenge would be even greater than

thought. GIPC, however, showed that its training produces results. Its fees are higher than those of other training groups because of those results. The Center technical staff grew in numbers and in capacity, and through his work with the pilot project factories the Technical Adviser was positioned to identify and prioritize other needed services and training content. Satisfied clients began to return for more than one course or product.

As a final element of the core sustainability strategy, we monitored results. Client performance data is collected monthly; after the first six months factories may stop providing production monitoring data, but many continue after more than two years. GIPC also maintained an annual monitoring and evaluation review that verified our results (part of our contract management), but also included a cross-check with the factories and other stakeholders to see whether they agreed with our assessment of our contribution (part of our client satisfaction management) (see Appendix D). Trainees were surveyed after every course, and again, months after training, by external research groups.

The original curriculum was reduced and courses were adjusted based on client response; new courses were added as needs were discovered. As the Cambodian technical staff expanded its range and confidence, more sophisticated courses were added. The multilingual abilities of the staff allowed GIPC to offer training in three languages, including Chinese. This adaptability is now enabling the Center to explore new sectors and revenue sources.

Certainly, the project experienced failures as well as successes, but had further funding not been provided by USAID, GIPC could have been restructured as a program within an educational or vocational institute, or in conjunction with another training provider. The resulting effort would have had limited scope but the knowledge transfer and the competencies needed, with the cash reserve for maintenance, ensured that the benefits would survive the initial contract.

TECHNICAL STANDARDS

The GIPC was fortunate to have the contributions of Werner International, Inc., and its textile engineers led by Heinz Reich and Gino Marello, to provide and adapt the technical content of GIPC’s programs. Their experience managing apparel production in Germany, United States, Portugal, Italy, and Brazil, and consulting in developing countries such as Egypt, Turkey, Peru, and Dominican Republic, ensured they were prepared to offer practical solutions to any problems encountered in Cambodia.

The training of the GIPC technical staff was a critical first step and continuous over the life of the project. Standards were set for learning key elements of the curriculum, and as each technician showed capability in one area he or she was expected to move on to another while achieving mastery of the first. Individual differences manifested themselves, and these differences became important in selecting technicians to work in specific factories or in a particular program area. Each, however, was expected to follow a similar progression in skills and compensation was structured to reflect acquired skills.

With each technician equipped with the same technical knowledge, methods and materials, and equipment, GIPC has been able to deliver a consistent and high standard of service. The Technical Advisers continue to add richness and credibility to GIPC’s training and consulting

offerings, but are not (as we were warned during startup) indispensable. One general manager who originally scoffed at the idea that Cambodians could make improvements in his factory now welcomes GIPC technicians and their advice. (See Appendix C)

From its beginning as an ambitious six-month program for production management, the training curriculum was reduced to a series of manageable courses (2-3 weeks, part time) to minimize the time that employees were away from production duties. Each course incorporated theoretical training and practical application. The practical exercises in the factory proved to be the one of the most important factors in GIPC's technical success. Many trainees sent to GIPC were poorly educated and had difficulty grasping theoretical concepts but with the patient assistance of our Khmer-speaking technicians showed great aptitude for learning by doing. When they grasped the ideas and the purpose, the trainees were tenacious if allowed to practice their skills in the factory.

The rigor of the programs was never compromised by trainees' limitations. Aptitude testing preceded some courses, and the testing method was offered to client factories for their subsequent use. Not all trainees grasped all aspects of the training but independent surveys of those who completed the courses found that more than 95 percent of those surveyed felt that they had greatly improved their capabilities.

MONITORING AND EVALUATION

USAID holds its partners to strict standards for monitoring and evaluation of project results as a condition of funding. A Nathan Associates economist and industry expert, Peter Minor, assisted with the performance indicators, ensuring that they reflected actual results and were aligned with the program objectives. It was also important that they serve, where possible, as management tools for the GIPC. (See Appendix D)

The evaluation within programs was equally important and guided the project team in continual adjustments to GIPC programs and activities based on measurable results. These evaluation processes included the following:

- Assessing the knowledge, math skills, or other learning tools of those participating in training programs and capacity building sessions at the start of the programs and sessions.
- Assessing the same at the end of the programs and sessions, and awarding "completion" and "with distinction" certificates.
- Surveying trainees to determine whether training was appropriate and the impact it had on their professional growth (conducted by independent parties).
- Attempting to survey clients to determine their level of satisfaction level (little was learned compared to interviews with the M&E reviewer).
- Systematically reviewing the capabilities of GIPC technicians twice yearly.
- Reviewing income earned from particular clients, and from specific programs, to inform strategic planning.
- Discussing factory results in meetings to clarify their significance when, as often happened, they suggested lower performance than in other months.

5. Lessons Learned

As noted, aspects of the project did not produce the results expected and the team adjusted to disappointments as well as to success. In this section we present our analysis and response to the obstacles we encountered. The GIPC continues to operate as a Cambodian organization, so the effectiveness of our responses will be tested over time.

CONNECTING TO THE MARKET

During the original (2005) survey of the garment industry in Cambodia, the private sector expressed concern with and interest in productivity improvement. When GIPC was launched, the project team learned that in fact members of the GMAC Executive Committee were skeptical of the approach, or had little interest. Over the first year of the project, GIPC was confronted with some challenges:

- The foreign investors who control 90 percent of production often retain operational oversight, and many local factory managers lacked authority to approve the purchase of training.
- Some foreign investors expressed reluctance to invest in Cambodian workers whom they considered likely to quit after training. Others wanted to see the training done before workers entered the job market, removing the burden of cost and commitment of time from the employer.
- When a factory did agree to training, scheduling proved an arduous task and production schedules—reflecting either too much or too little work—could delay by months the in-factory follow-up or the second part of a three-part program.
- Expatriate supervisors and production managers often considered GIPC a threat rather than a support, and ignored the new skills of subordinates or undermined implementation in the factory.
- When included in training foreign supervisors often missed class, and when new processes were adopted, claimed the results as their own and unrelated to GIPC.[1]
- Only factories where the general manager was personally engaged and committed to adopting new processes were truly successful. Every client with strong support from top management had quite positive results.

[1] The project staff accepted this because the goal of the project was to improve productivity not to take credit for the improvement; still, this situation affected marketing and results provided to USAID.

The general lack of enthusiasm was clear from the project's beginning, but the specific issues surfaced with time and experience. The problems of leadership attitude were compounded by the hectic pace of production in some seasons. It affected GIPC's ability to hit targets for productivity improvement because consistent data was simply not provided. It also slowed GIPC's progress with the industry, but the extent of GIPC's success in the face of these obstructions reflects the quality of our programs, and that the original strategy was sound.

The challenges remain, however, and GIPC has begun some new initiatives in response:

- Expanding the market beyond the garment industry in Cambodia to smaller producers, and possibly to other industries and countries in the region.
- Bringing successes to the attention of the Cambodian factory owners/investors in other countries, both directly and through buyer contacts.
- Reducing resistance through short modules to introduce supervisors and production managers to GIPC work study methods.
- Maintaining the focus on bringing results to the factory.

FACING COMPETITION

After GIPC introduced productivity training and began producing results, other donor and stakeholder projects became interested and soon the market had new entrants, some with better access to the factory base and most with less costly programs.

- After a nearly two-year hiatus, the CGTC, GMAC's training center, was staffed with a Japanese engineer again in 2007. GMAC and GIPC worked well together on a number of industry issues, but CGTC was "their" training center and received priority in communications and programs and received financial support as well. The CGTC technical expert rejected GIPC's offers of cooperation but adopted a number of our activities, program names, and metrics. We continued our positive relationship with GMAC, but occasionally lost clients to CGTC.
- GMAC received funds from the Agence Francaise de Developpement for a project that included training. Initiated late in 2006, the project meshed well with GIPC and the training centers were able to collaborate, but over time the implementer offered productivity training, adopted GIPC's university contacts, and began promoting a new institute, including parallel training in production management. GIPC supported their core concept of training workforce entrants but the campaign dampened interest in training current workers, and these new trainees would not enter the market for two or more years.
- Factories with limited discretionary resources (which is the case for most in Cambodia) have little to spend on training. Labor compliance is a prominent competitiveness factor, and the largest buyer companies encouraged their supplier factories to participate in the ILO's Better Factories Cambodia (BFC) training program; moreover, BFC factory monitoring was mandatory to export. While neither GIPC nor BFC felt the training was directly competitive, factories frequently cited the BFC module on productivity as a reason for disinterest in GIPC productivity training.

Competition is a regular feature of the capitalist system, and often helps to ensure the consumer receives the highest possible quality at the lowest price. GIPC's strategy was to seek areas of agreement with its competitors and collaborate where possible. Where programs competed directly, we identified ways of distinguishing ours and continued to market our services. Collaboration with "competitors" also resulted in some highly successful activities that benefited both parties, as the examples following describe.

Working With Partners

International Labor Organization

The relationship between GIPC and the ILO has been beneficial for both parties, but not without challenges. Initial exchanges with the BFC program suggested potential for collaboration, but the tension between BFC and the garment manufacturers forced GIPC to maintain distance. Moreover, "productivity improvement" was a critical marketing message for GIPC. When BFC began advertising productivity improvement, potential clients declined GIPC's technical services citing the work done with BFC (helpful, and well-designed training, but without a solid technical component).

We were able to work together on several successful programs, delivering training that helped meet ILO goals, supporting the development of labor leaders, and improving the production management knowledge of ILO trainers. At the same time, we maintained distance from the labor compliance monitoring activities which were a source of tension with employers. We also communicated directly, and openly, with the GMAC leadership about the work we were doing with the ILO, and shared the content with them.

The collaboration was effective because we *identified our shared interests* and *acknowledged where our objectives differed* or were in direct conflict. We worked together when opportunities presented themselves, but maintained neutral status on matters outside of our interest.

International Finance Corporation

Inevitably, international donors will identify some of the same problems and projects will have overlapping objectives and tasks. In this situation, we were able to cooperate on shared areas of interest and made a concerted effort to avoid duplicating each other's activities.

When GIPC launched its stakeholder meetings at the beginning of the contract we learned that the Mekong Private Sector Development Facility (MPDF) also planned to introduce productivity training, but not for another 9 to 12 months. As a donor to BFC and as the coordinator of the Buyers' Forum (a biannual convocation of compliance officers from international retailers concerned with BFC's factory monitoring), MPDF was committed to a leadership role in strategy development.

GIPC and MPDF had objectives that overlapped but the project leaders opted to collaborate rather than institute competing activities. MPDF focused on "soft skills" training to help supervisors improve their communication and motivation skills while GIPC concentrated on technical

training. MPDF led the initiative for a strategic framework on training in the industry with the support and participation of GIPC.

The MPDF retained one of GIPC's key contributors, workforce development specialist Lynn Salinger, to assist with the strategy. The projects were able to divide international travel costs and the result aligned the interests of both parties. The strategic framework was presented to the Royal Government of Cambodia identifying GIPC as a key contributor.

The collaboration was effective because the parties agreed to revise their individual program strategies based on practical considerations of timing and preparedness, and by sharing technical experts the parties were able to align their interests further.

WORKING WITH THE PUBLIC SECTOR

The Royal Government of Cambodia had no clearly articulated policy for workforce development, and the lack of formal recognition systems for training prevented GIPC from establishing standards that conjoined with those of any authority. The private sector had no articulated strategy, or skills standards, and in the absence of leadership from these parties no formal certification was possible.

GIPC began several initiatives in the policy area, including jobs skills and standards, certifying training content and partnering with other institutions on training development. In the last six months of the project the GIPC director worked with the Ministry of Labor and Vocational Training (MOLVT) on a proposal to move GIPC to an MOLVT campus; delayed by a national election and other donor initiatives, the agreement could not be completed within the GIPC's timetable. At the same time, GIPC was successful in collaborating with the National Polytechnic Institute of Cambodia (NPIC), another MOLVT training provider, on a program for provincial training centers that will be continued by NPIC and may provide future opportunities for GIPC.

Our successes in collaborating and cooperating with the public sector were based on

- Confirming early on that a proposed activity or collaboration was of great interest to specific individuals within a government agency;
- Defining clear roles for the government and GIPC (if government representatives could not fill a role, the project generally stopped immediately).
- Limiting collaboration to two parties—the GIPC and the government agency (if another party was involved complications often inhibited decision making).
- Except in one case, ensuring the government role was more advisory than active.

IMPLICATIONS FOR FUTURE PROJECTS

GIPC has demonstrated that it is possible to use training to improve industrial productivity in designated industry sectors. The lessons learned may not be applicable to all environments, but include a number of important considerations.

1. Gauge participants' openness to change. Every teacher knows that a student cannot be forced to learn; by the same token, private companies cannot be forced to participate in training.

Therefore, it is important to evaluate both the training needs and the attitudes of the potential beneficiaries toward the contemplated program. It is possible that some of the resistance GIPC encountered might have been anticipated with a different approach to evaluating needs.

2. Consider broader education issues in structuring similar programs. GIPC developed creative tools for helping semi-literate workers learn the skills they would need, including adding elements such as Khmer language workbooks and exercises that would not have been required in an environment with better basic education. In addition, some of the problems the project encountered, including labor unrest and basic attitudes toward work, were tied to basic education.

3. Magnify results through stakeholder collaboration. Throughout the project, GIPC consulted with other stakeholders and sought partners with at least some common goals. These relationships enabled GIPC to contribute to efforts with broader results than its resources and scope envisioned, and to find sustainability in initiatives whose value was recognized and that were adopted by the direct beneficiaries in the private or public sector. For example, our factory-level value chain analysis was valuable in its own right and contributed to the World Bank's investment climate survey, which receives much wider distribution.

4. Focus on investment in human resources rather than hardware. This applies on a number of levels. First, factories could have made significant improvements by investing in new machinery but most would not consider doing so. Improving production management skills was less costly, and while some feared that trained personnel would leave still considered it worthwhile. Second, GIPC itself invested in the training and development of its own Cambodian technicians rather than in buildings and transportation. As a result, the client received better service that strengthened the industry and the Center.

5. Listen to the industry to identify where value can be added. Through participating in discussions with the private sector and other stakeholders, GIPC identified the issues they considered obstacles to competitiveness and was able to address them. The SOW in the GIPC contract was flexible enough to allow the project team to direct its energy to the areas most easily integrated with its activities that met specific needs.

In conclusion, the project fell short of its goals for raising productivity in the industry overall, but achieved significant results for individual client factories. GIPC also changed the understanding of the impact of low productivity on Cambodia's competitiveness and earned recognition for obtaining real improvements based on human capacity.

We believe that the GIPC is well-positioned to become sustainable, especially given the additional support from USAID. However, the project's contributions already ensure sustainable impact on competitiveness and the workforce. The dialog between employers and unions is maturing with the help of GIPC, and the project's training created opportunities for individual garment workers, and challenged the assumptions that restricted them to the lowest level jobs. They are sharing what they learned in ways not possible for their expatriate managers and supervisors. In addition, the education and vocational training sectors have new tools, and a new perspective, to build the workforce in ways that will benefit the garment industry and, in time, new employers as well.

Appendix A. GIPC Activities and Outcomes

Activity	Outcome
TASK 1. ESTABLISH A SUSTAINABLE CENTER FOR PRODUCTIVITY IMPROVEMENT IN CAMBODIA	
Establish and Equip Center Location	
Consulted with GMAC and other stakeholders regarding location	Admin offices and training rooms leased for 3 years in central Phnom Penh, best for creating relations in the community. After 3 years, as established community member, new location closer to client base and lower cost.
Obtain tools and teaching materials	Course materials in 3 languages, industrial stopwatches, demonstration sewing machines, and automated patternmaking equipment
Recruit appropriate staff	Cambodian director, 8 trainers/technical advisors, office manager and accountant, and support staff.
Information management systems	Server, database to maintain client information, accounting via Quickbooks
Establish contacts with regional training organizations	Contacts with Thai garment training center and with Hong Kong, Malaysia, and India to discuss frameworks for cooperation, extending GIPC resources
Form a Cambodian Organization	
Research organization options	Registered as an NGO with potential to change designation (Year 3); the decision was based on options for receiving equipment from USAID, and on market response to the fees if GIPC were seen as "profiting."
Obtain input and buy-in from stakeholders and the business community	Assembled an advisory committee of stakeholders during the first phase of the project; in Year 3 seated a Board of Directors to guide the organization. The original advisory group contributed marketing ideas, business leads and introductions, and helped set operating priorities; the Board's role is more direct and includes more management oversight.
Phased reduction of contributions from US and other foreign advisors	Management and technical staff showed growing confidence and ability to operate independently.
Establish a Sustainable Business Model	
Consultation with stakeholders	Advisory committee endorsed fee-for-service concept; information was solicited from other training services to establish initial rates.
Define markets and products	Frequently revised and adapted during the first 2 years, in Year 3 GIPC has a core product group of technical training/consulting for factories, and advisory services for other stakeholders (income negligible, but adding value) and is exploring new sectors and regional markets

Activity	Outcome
Prepare business plan	Business plan prepared after 6 months operation and updated regularly to reflect changes; fee structure appears appropriate but targets have been met each year. Over $80,000 reserve accumulated.
Marketing and Outreach to Establish GIPC in the Community	
Create a website and basic literature	The GIPC website went live in 2007 with course descriptions, activities, and contact information; it is now multilingual. Two brochures also created, one on GIPC and the other on employment opportunities.
Sponsored two industry meetings on competitive strategy and trade with US industry expert speakers	Over 50 factories and other stakeholders participated in seminars that addressed GIPC services and advised against relying on duty free status in United States as a strategy.
Outreach to ILO, MPDF, GMAC and other training organizations	GIPC took a central role in developing an industry training strategy; by emphasizing integration efforts we minimized redundant and competitive programs. As a side benefit GIPC sometimes delivered technical training for other stakeholders.
Participated in public-private working groups sponsored by IFC, UNDP, and assumed leadership of a tripartite strategic group organized by Asia Foundation under a USAID-funded program.	Over the 3 years, GIPC's leadership (COP and Director) were invited to play a larger role in formulating industry strategy; we used these opportunities to improve the dialogue between employers and unions and to introduce areas of common understanding of industry economics, the global market, and Cambodia's position and limitations, to help inform strategies.
Achieve Sustainability Within 3 Years	
Implement a fee for service model based on professional services fees	Fees were collected from the first year; a reserve of more than $80,000 accumulated over 3 years; GMAC held funds under an MOU until GIPC was organized as a Cambodian entity in 2008.
Implement a marketing plan to build (paying) participation in GIPC activities	Targets for new clients and for earnings were met but inflation and staff retention forced costs up and ultimately GIPC was unable to achieve financial independence. In its first year, GIPC served 11 companies then approximately 20 new clients in each following year; in relation to employment, this represents more than 15 percent of the export industry. Director implemented a successful marketing plan that placed more emphasis on staff contributions.
TASK 2. PREPARE CAMBODIANS AS TRAINERS AND CONSULTANTS; DELIVER TRAINING AND CONSULTING SERVICES TO INDUSTRY	
Prepare Cambodians as Consultants	
Recruit Cambodians to become technicians and consultants	First four consultants recruited in January 2006; three years later GIPC has eight—six men and two women. The five longest employed with GIPC have mastered the core technical subjects, one specializes in CAD marker production and two are still in their first year.
Upgrade their technical skills to become service providers to the industry	While some of the recruits had industry experience, none had the level of experience expected by the Engineering Adviser. Over three years Engineers Reich and Marello prepared the GIPC technicians to be credible trainers and respected advisors, able to work with semi-literate operators or expatriate managers.

Activity	Outcome
Invest in broadening their perspective and judgment through study tours, supervised independent action	Applying the teach-test-trust principle, Engineers guided development of independent judgment. Confidence and initiative vary by individual but the technical staff can now ably represent GIPC during the absences of foreign advisers. Additional skills are added according to capacity. We still see opportunities to strengthen customer relations and marketing skills.
Deliver Training and Consulting	
Organize core group of courses and schedule presentation	More than 45 training programs were delivered to factories; GIPC averages three separate training activities per month. Of those, 20 of the 26 factories who have taken courses returned for additional programs. Most clients contract for a suite of three programs: time and work study, supervisory skills, and training operator trainers. Quality control systems, and a program for HR managers to test aptitudes, are also valued in the marketplace.
Adapt training to individual client needs	Programs include theory and practice; the practical application is always performed in the client's factory, so is always adapted. The programs are offered in Khmer, English, and because of the expatriate involvement in the industry, Chinese.
Conduct post-theory in-factory follow up to ensure client value	An in-factory follow-up is completed for most courses within 2-3 weeks of classroom training. When the factory schedule does not allow quick follow-up, GIPC usually offers some re-training as new skills are lost quickly if not applied. Factories who participate in follow-up generally have stronger ties to GIPC and are likely to show interest in other programs.
Use training to improve opportunities for Cambodians in the industry	The contract directs GIPC to focus on engineering and supervisory skills; clients are encouraged to train Khmer staff to build their skills and lower employer costs (expatriate housing and benefits are unnecessary when Cambodians can do the work). In three years, 78.5 percent of the 490 trained were Cambodian and a high percentage reported professional gains as a result.
Measure Results	
Establish baseline data for clients joining GIPC programs to productivity, quality, employment, and similar indicators, and update monthly (after training)	GIPC has advised 46 factories; 26 have paid for training courses. Of those, at least 12 have measurable increases in productivity that added $13 million in value of labor to the Cambodian economy. A client database, updated monthly by GIPC technical staff based on the client's records, provides reports that capture production results. The information is valuable for new client development as well as for identifying problem trends, or noting progress. It also strengthens relations between GIPC technicians and in-factory personnel.
Before each class, a short test helps trainers understand knowledge levels, and a final exam confirms that participants have grasped content	The training records for all courses and individuals help instructors prepare for new courses, and confirm the efficacy of GIPC programs.
Follow up with students to determine whether the training benefited them individually	Independent surveys reached approximately 65 percent of individuals trained at GIPC. Of those, 90 percent reported better job performance and 45 percent received promotions or raises within a short time after completing the course.
Survey factories for satisfaction and ideas to improve programs	Respondents confirmed general satisfaction; most would prefer not to pay. Little substantive value to the report compared to M&E work described below.

Activity	Outcome
Nathan Associates M&E program included client interviews	A Nathan industry expert made annual site visits as M&E officer; interviews with clients, staff, and data review confirmed results and insights and recommendations for program improvements.
TASK 3. IMPROVE ABILITY OF FIRMS AND ASSOCIATIONS TO FORMULATE STRATEGY AND IDENTIFY AND DEVELOP PRODUCTS THAT CAN COMPETE GLOBALLY; COORDINATE WITH OTHER DONORS AND BUILDON ACTIVITIES TO PROVIDE VISION OF GOOD GOVERNANCE	
Evaluate Employment Markets	
Survey employers, workers, students, educators	GIPC's workforce assessment conducted in 2006 found a dysfunctional employment market; industry requirements and employment opportunities were not understood, obstructing the development of Cambodians for positions requiring higher skills and education.
Review results with stakeholders	Presented findings to educators, donors, government (MOLVT), and industry possible action steps.
Support Changes in Employment Market; Engaging Educated Youth	
Surveyed universities to identify potential partners for relevant training and course content	Determined there was no relevant content taught in Cambodia despite industry role in economy and employment.
Presented workforce assessment results to 30 university and TVET reps and solicited support for training	Obtained excellent feedback; some very negative and clearly saw garment industry as undesirable employment; others were very interested in offering courses
Developed and presented the outline for a business/economics course on the garment industry	National University of Management offered to pilot the program; other schools showed interest and during follow-up 4 agreed to send lecturers to learn the course materials.
Trained university lecturers, supplied course text and content sources to maintain courses	Four universities (NUM, ITC, Norton, and University of Cambodia) added industry curriculum to general business/economics courses
Sponsored industry participation in the annual employment fair	Nine employers participated in 2006; response very positive. In following years GMAC sponsored an industry booth and various employers did recruiting.
Created and distributed information (Khmer and English) drawing on surveys and expert knowledge, and spoke with youth about industry jobs	University students attended meetings, showed interest in learning more about the industry,
Organized factory visits for youth	Students originally disinterested contacted factory managers regarding potential internships
Supported development of workforce entry program for rural and other new-industrial workers	The MOLVT National Polytechnic Institute and CAMFEBA partnered with GIPC to develop and test a 5 day program to help orient new entrants to formal employment; initial response was positive. Next steps include revisions based on feedback, and training trainers in provincial training centers.
Improve Understanding of Skills Needed for Higher Paying Jobs	
In consultation with GMAC training consultant, prepared job descriptions and competencies for over 20 positions	GMAC representative unable to obtain industry agreement to the proposed system but in 2008 the work was adopted by AFTEX as the basis for developing ASEAN regional standards.

Activity	Outcome
Supported first comprehensive study of jobs and compensation in Cambodia's garment sector with local firm HR Cambodia, Inc.	Study established benchmarks in employment and compensation including pay levels, expatriate positions, standard benefits; we are not able to measure how it affected the policy of individual companies, except that HR and other partners report that a number of factories continue to participate in subsequent years; the report also brought recognition of USAID/GIPC contributions from MOLVT leadership.
Improve Collaboration in Industry Competitive Initiatives	
Joined USAID partner The Asia Foundation dialogue on competitiveness	At the conclusion of TAF funding, GIPC accepted organizer role in the Tripartite Strategic Forum in which industry management, unions and government representatives meet to discuss competitiveness challenges and cooperative strategies.
Supported USAID partner ACILS with a six6-part training program on different aspects of competitiveness (2007)	Each session attended by more than 20 labor leaders whose evaluations showed growing understanding of business threats. Participants acknowledged that they did not believed employers representations, but that GIPC was considered fair and unbiased.
Led employers, unions, and government delegation on study tour to evaluate competition from Vietnam after its accession to the WTO. In 4 days of travel, 24 representatives of factories, labor and government saw a key competitor's production efficiency and the strategic cooperation between industry and government, and evaluated threats to Cambodia	Industry and labor leaders agreed to continue meeting on a quarterly basis to improve dialogue and relations (and have done so). Government made no commitments, but MOC and MOLVT continue to consult with GIPC on issues. Participants asked GIPC to continue capacity building and help to maintain dialogue, GMAC credits the new dialogue mechanism with lower tension between labor and managers.
Developed a five-hour introduction to industry economics for labor reps in the ILO's collective bargaining training (2008)	11 sessions presented to 160 factory-level labor representatives. Comprehension tests given to "graduates" showed growing understanding of global markets, international competition, retail issues and pricing all contributing to better understanding of workers and their reps. Generated $5,000 "earnings" for GIPC.
Analyzed the industry value chain to supplement the World Bank's sector content in the Investment Climate update and presented findings to stakeholders in small meetings to promote discussion	Value chain analysis findings provided a common vocabulary and understanding of the industry's structure; other stakeholders, ranging from the MOLVT Secretary of State to GMAC and donors, have used it to inform strategy and develop support for their positions. Findings helped define GIPC strategy and terms for engaging with stakeholders.
Supported public-private sector working groups seeking to inform and guide policy formation	Supplied hard data to support GMAC complaints of the impact of informal costs on export competitiveness. Director nominated to chair the garment sector subcommittee on trade in the multidonor Sector Wide Approach (Trade Swap), a strong indication of GIPC's leadership in industry policy development.

Appendix B. Performance and Operational Indicators

Summary of Indicators 2007/8 and LOP

Indicator	PMP Target FY08	Actual FY08*	% Achieved in FY 08	Notes
6.2.1.a Number of firms receiving USG assistance	20	36	170%	This is a revision upwards from 31 factories reported on 9-25-2008
LOP	50	46 LOP	92%	
6.2.1.b Number of firms realizing productivity gains	8	6	75%	FY 2008 result shows improvement from gain in momentum over prior years
LOP	20	12	60%	
6.2.1.c Return on Investment (LOP)	$10 million or a ROI of 3	$13.2 million or an ROI of 3.9	133%	Updated January 20, 2009 (LOP)
6.2.3 number of firms receiving USG assistance for improved technology	8	9	113%	Revised upwards by one factory
LOP	12	11	92%	
6.2.4 Number of private dialogue mechanisms from USG assistance	3	3	100%	Trade and Transport Study; Trade Swap; Tripartite Group
LOP	4	4	100%	
6.2.2 number of business associations and trade unions that are at least 50% funded	US$ 60,000	$52,410	87%	$60,000 figure came from OP plan; $52,410 from invoice records through November
LOP	$110,000	$99,400	90%	
6.3.a Number of persons participating in USG workforce development	100	245	245%	Business target was not individuals trained, but income and clients so was a loose
LOP	250	490	196%	
6.3.bNumber of persons completing workforce development programs	75	235	293%	15 students were in a course ending 01/20/2009. and are included in this count
LOP	150 (no target ’06)	397	264%	

Indicator	PMP Target FY08	Actual FY08*	% Achieved in FY 08	Notes
6.3.c Number of workforce training by private sector partners	45	55	122%	
LOP	65	87	133%	
6.3.e number of policies created or reformed	1	1	100%	(LOP indicator was also 1 policy)
OPERATIONAL PLAN INDICATORS				
4.6.2a Number of firms receiving USG assistance to improve their management practice	15	19	120%	New firms for FY08; total number of firms served by GIPC over three year project - 46
LOP	50	46	92%	
4.6.2.b number of firms receiving USG assistance to invest in new technologies	8	9	112%	Distinct firms; total of 11 for the project
LOP	12	11	92%	
4.6.2c Number of business associations and trade unions that are at least 50 percent self-funded as a result of USG assistance	1 @ $60,000	$52,410 of $60,000	87%	
LOP	1 @ $110,000	$99,300	90.3%	
4.6.3 Number of persons participating in USG funded workforce development programs:	100 LOP: 250	245 LOP: 490	245% 196%	No target defined prior to 2007 which exaggerates performance
Female	60	211 / LOP 398		No targets were set for desegregating until after 2007 plan
Male	40	34 / LOP 95		
4.6.3a Number of persons completing USG funded workforce development programs:	75 LOP 150	235 LOP 397	293% 264%	No target defined prior to 2007 which exaggerates performance.
Female	40			No targets were set for desegregating until after 2007 plan
Male	35			
4.6.3b Number of people gaining employment or more remunerative employment as a result of participation n USG-funded workforce development programs	45	117	260%	When program indicator was selected team had no precedent to anticipate training participation, or impact, resulting in exceeding target
Female	35	67		
Male	10	11		

Indicator	PMP Target FY08	Actual FY08*	% Achieved in FY 08	Notes
4.6.3b Number of new or improved workforce development policies drafted through USG assistance	1	1	100%	Includes new curriculum; industry course introduced at 4 universities (Also target for LOP)

**FY2008 includes four-month no cost extension.*

Appendix C. Technical Adviser's Final Report

1.0 OBJECTIVES

The main objective of the project was to improve the performance and efficiency of the Cambodian Garment Industry so that the local companies could grow and compete with the international players. The program was proposed to sustain the industry in view of the elimination of the "*Free quota trade agreement" for Cambodia's garment industry* and to ensure its survival. Training the local personnel and implementing modern management control systems in as many companies as possible were the initial targets of the technical assistance program.

2.0 APPROACH

The technical assistance was provided by setting up a productivity center (the GIPC). The center, staffed with competent technicians, would provide short-term, or long- term assistance and / or consulting services to the companies willing to welcome the GIPC-team in their organization. In addition, the GIPC would offer training courses to various levels of personnel in the garment industry. The initiatives were conducted over a period of three years by a Technical Advisor, Mr. Heinz Reich, supported by the presence of a technical consultant, Mr. Giovanni Marello, both employed by Werner International.

3.0 CREATION OF THE GIPC CENTER

3.1 The team created

The first task was to develop local competencies. The personnel for these consulting and training services were selected from the personnel proposed by a human resource office. Initially, 4 candidates started without experience in garment manufacturing. They were joined later on by a fifth candidate, this time with some background in garment production.

Some month's later; one experienced worker of a factory cutting department joined the GIPC to operate the newly acquired CAD/CAM system.

Finally, two more employees with some knowledge in sewing came to work for the GIPC.

We expect that two or more technical staff will be needed to join the present seven technical members.

3.2 Their skill development program

The technical development of the GIPC personnel included basic and advanced courses in:

- Organization
- Time Study
- Training in Management, Supervision and Operator skills
- Production optimization
- Quality Controls
- Product and production engineering
- Work and motion study

Efficient manufacturing systems and methods were introduced. The theory taught in classroom was followed up by training on the job in the participating factories.

In addition to the needed technical knowledge, the personalities of the staff would have to be strengthened for the next step: the future consulting in the industry and the development of the training courses at the center.

Through constant interaction with the participating factories, the GIPC technical staff was prepared to understand and judge the factory personnel, comparing theory and current procedures in the plants.

These experts are now competent in the fields we had chosen and defined according to the development program

3.3 The initial steps

The initiatives started through a Pilot Program which included four factories.

The Companies participating expected to receive free on site consulting from the Technical Advisor (Textile Engineer with international experience); Classroom training for the companies' employees and the application of the systems and methods learned in training classes, also included without charges.

The on site training gave the Technical Advisor an opportunity to demonstrate the capabilities of the GIPC and to prepare adequately the GIPC technical staff on practical grounds.

3.4 Training programs offered today by GIPC

The development program indicated the theoretical/practical courses:

- Time Study and Standard Time development
- Work - and Motion Study
- Product Engineering
- Production Organization and Systems
- Supervisor-, Factory Technician-, Operator Training- Courses
- Methods and Systems for Production-, Quality-, Efficiency-,
- Productivity-, Waste-Controls, and a test for the Selection of Personnel,

The training programs offered by the GIPC center are focused on the development of instructors able to transfer the knowledge to the companies. The training methods used in the program were developed in industries around the world.

Specific courses are hand tailored in their content as well as in timing, if requested by a factory.

The GIPC Administration made all announcements for the Courses and has registered data of the participating factories and personnel, as well as the individual test results, measured at the beginning of a course and after course completion.

The program can work as a snowball system. Each course can prepare 20 to 25 trainers, who in turn can, after 3 to 5 weeks, transfer the knowledge to their peers.

All GIPC technicians have acquired the status of being competent trainers in at least 5 different fields and have the competence to evaluate if any course for a specific factory needs to be adapted or changed, as well as making the evaluation of the student's performance.

3.5 Direct assistance to the companies

The Technical advisor has made initial visits to ascertain the needs specific to each company and recommended an action plan. He was accompanied by one, two or three GIPC trainees so that they get familiar with the service.

4.0 INITIAL TARGETS

The initial target was set for having a minimum of four consultants (GIPC technicians) working to support the technical departments in the garment factories, one responsible to give service to the cutting departments of the industry and two to three technicians for specific training courses at the center.

It was a difficult venture to prepare professionals from these mostly inexperienced personnel. However, the dedication to their new jobs and responsibilities made the candidates a team of specialists in the field of industrial production.

5.0 MAIN FINDINGS

During the initial part of the program, we learned that the companies worked with very basic, simple and mostly outdated management systems. The companies were however demonstrating good practical knowhow (mostly introduced by expatriates) and most technical knowledge in the factories were based on practical experience, practiced without any updating during the last years.

Major difficulties were and are still experienced in the industry because of language problems. Good communication between the workers and the management within the same company is practically not existent and very few interpreters or translators are available.

In order to define the accurate production data, we often found that the controls are not correct or not taken in time to make an intervention to correct the situation. We found that the foreign management is less willing to make changes in methodologies or controls than the Cambodian personnel.

If the top management feels the need to improve their manufacturing, systems are then easily absorbed by the organization.

The management is frequently and positively influenced by its customers to understand the benefits of training and consulting.

6.0 DIFFICULTIES ENCOUNTERED

As expected, some of the factory management or staff were not collaborating to make the outside help effective. The factories were not willing to share their data for the monthly input in the DATABASE for productivity improvement monitoring.

Significant variation of workloads, products, product values, different quality requirement, shifting of production personnel from one production line to the other, lack of transparency in incentive payments and bonuses, high fluctuation of productivity because of missing competent operators and leadership, created problems even for short term planning.

Lack of trained middle management resulted in additional time and effort to make simple changes in the factories.

The production program departments have to work every season with smaller quantities for every product and/or every model. The top management is therefore making shortcuts, many times eliminating good and detailed planning and work/job preparation, increasing this way the real production time and reducing the average productivity level to be as low as 35% to 40%.

7.0 MAIN ACCOMPLISHMENTS

We shall relate some of the difficulties we confronted and had to overcome in order to bring positive results

The work planned and done during these three years in the various factories has been related in the “Trip reports”. The accomplishments of the three year program however can only be evaluated on the results that the factories achieved after the interventions of the GIPC staff.

The results may not reflect entirely the true improvement. Even if the final numbers are compared, a variety of external events are influencing the results positively or negatively.

The main accomplishment is that today, Cambodia has a technical center where competent *local* people are able to provide on site technical help and proceed with training programs at the center and in good organized company’s by their own staff.

The program introduced by the GIPC is supported by qualified professionals reducing the dependency of the local manufacturing units on importing expert employees.

The Cambodian garment industry can benefit from the new work methods and training programs and be more flexible in manufacturing as well as prepare a class of needed middle management.

Nearly all the companies have been newly built or recently set up. Most of the equipment is new and simple, facilitating the introduction of basic sewing to the workers.

To our satisfaction, we noticed that some factories initially resisted to get consultant help, but finally decided to use the facilities of the GIPC and became the best reference of the project. A detailed evaluation can be undertaken by a study of the updated Database.

The knowhow and help of the GIPC was also used in planning, and starting of new factories and/or production lines, as well as changing some tailor shop manufacturing to industrial production.

The project finally helped small companies of no more than a dozen operators.

These micro enterprises can use the same systems implemented in companies of more than 10,000 workers if the GIPC technical staff adapted the program.

We globally believe that many companies have improved between 15% and 50% and their employees have greatly benefited. Some factories started with one or two lines to practice the new ways, some did not want to make the effort to change and applied only a part of the method or system.

The country as a whole has gained by having resources and knowledge to optimize its manufacturing system.

8.0 RECOMMENDATIONS

In a similar project in the future, we believe that improvements can be made and can bring benefits to all the participating parties. The success of any new initiative is today depending on the sales of the idea; we could have done better if we could have counted on more believers in the project.

The search for more professionalism must come from the companies' management itself, not from the help program.

If possible, one or two factories should be contracted to use some production lines for the project to experiment, demonstrate and exercise together with the students.

We recommend preparing the management through workshops to understand the changes the training and consulting could bring; this should happen before the companies or factories select the employees to participate in the training.

Appendix D. Final M&E Report

RETURN ON INVESTMENT

Summary of GIPC Benefits and Costs (US$)

	Benefits	Costs
2006	1,147,485	--
2007	3,981,520	--
2008	8,070,477	
Total	13,199,483	3,400,000

Projected ROI

Estimated ROI	Dollar Benefits	Investment\Cost
3.9	13,199,483	3,400,000

Indicator Summary

Indicator	PMP Target FY08	Actual FY08*	% Achieved in FY 08	Notes
6.2.1.a Number of firms receiving USG assistance	20	36	170%	This is a revision upwards from 31 factories reported on 9-25-2008
6.2.1.b Number of firms realizing productivity gains	8	6	75%	
6.2.1.c Return on Investment (LOP)	$10 million or a ROI of 3	$13.2 million or an ROI of 3.9	133%	Updated January 20, 2009 (LOP)
6.2.3 number of firms receiving USG assistance for improved technology	8	9	113%	Revised upwards by one factory
6.2.4 Number of private dialogue mechanisms from USG assistance	3	3	100%	Trade and Transport Study; Trade Swap; Tripartite Group
6.2.2 number of business associations and trade unions that are at least 50% funded	US$ 60,000	$52,410	87%	$60,000 figure came from OP plan; $52,410 from invoice records through November

Indicator	PMP Target FY08	Actual FY08*	% Achieved in FY 08	Notes
6.3.a Number of persons participating in USG workforce development	100	245	245%	
6.3.bNumber of persons completing workforce development programs	75	235	293%	At the time of the report 15 students were in a time study course (01/20/2009. The 15 students are included in this count
6.3.c Number of workforce training by private sector partners	45	55	122%	
6.3.e number of policies created or reformed	1	1	100%	
OPERATIONAL PLAN INDICATORS				
4.6.2a Number of firms receiving USG assistance to improve their management practice	15	19	120%	New firms for FY08; revised down by one firm from Sept. document; total number of firms served by GIPC over three year project - 46
4.6.2.b number of firms receiving USG assistance to invest in new technologies	8	9	112%	Distinct firms; total of 11 for the project
4.6.2c Number of business associations and trade unions that are at least 50 percent self-funded as a result of USG assistance	1	$52,410 of $60,000	87%	
4.6.3 Number of persons participating in USG funded workforce development programs: Female Male	245 211 34	100 60 40	245%	
4.6.3a Number of persons completing USG funded workforce development programs: Female Male	75 40 35	235	293%	Data not available at the time of M&E review
4.6.3b Number of people gaining employment or more remunerative employment as a result of participation n USG-funded workforce development programs Female	45 35			Data not available at the time of M&E review

Indicator	PMP Target FY08	Actual FY08*	% Achieved in FY 08	Notes
Male	10			
4.6.3b Number of new or improved workforce development policies drafted through USG assistance	1	1	100%	Includes new curriculum; industry course introduced at 4 universities

**FY2008 includes four- month no-cost extension.*

REVISION OF ROUTINE DATA COLLECTION TO FACTORIES

Factory data are collected for M&E reporting to USAID and for internal marketing and program evaluation. Data are collected monthly on a factory information sheet (see Figure 1). The data are collected indefinitely from factories from their first enrollment in a training course. Companies agree to this monitoring in return for the low cost training.

Evaluation of Data Collection

The COP noted several challenges in collecting factory data:

- Factories either refuse to provide follow up data or do so reluctantly.
- Some are surprised at the length of the follow up period (with no conclusion).
- An excessive amount of time is being put into the follow up.

These three challenges each affect data quality. Interviews with the GIPC TTAs and with a handful of factories indicated a mixture of views on the importance of collecting follow up data. The TTAs feel that some factories do not want to be bothered and it is sometimes difficult collecting data from them; some do not seem to mind and actually find such data helpful. This view was echoed in the interviews of factories. One factory manager liked reviewing the monthly data as it helps with factory monitoring. The TTAs stressed that even though collecting data is sometimes difficult, doing so is critical to demonstrate results and advertise GIPC work, maintain regular contact with factories, and to monitor factory performance.

Recommendations

The GIPC team, including the TTAs, the RTA, and center director were present in two meetings where recommendations for improving the data collecting systems were discussed. It was agreed by all that a time frame should be put around the collection of data, to provide companies options to step out of the monitoring program if they so desire. The recommendations are as follows:

- All factories should be expected to provide information for six months following the last course they attend.
- After six months, the factory will be notified that it can to continue submitting data to GIPC for monitoring or that data collection can stop at that time.
- If a factory resists the idea of collecting data from the initiation of the data collection program, the TTAs will continue trying to collect the data for three months, then with the approval of the RTA and the center director, the factory can be removed from the data collection program as “noncompliant.”

The last point is important, since it reduces time wasted trying to collect data where it is not going to be provided. The TTAs believe the program should not be terminated too early and that it is not a waste of time to push for data in the first three months.

Most of the data collected are considered to be helpful, though several areas are either redundant or simply unreliable and no variation in responses has ever observed. The following are data points that could be eliminated:

- ***Line 2, Information on development, patterns, markers, and CAD/CAM***. This information never changes and asking for it all the time is a waste of time.
- ***Line 15, Production: pcs packed.*** No one is even sure what this represents; pcs sewn is far more important. Note: this data element could be useful if productivity or QC operations were carried out in the packing area. The M&E officer suggests that some elements may be added to a particular firm's data collection form when it is needed. The data element should be maintained in the database but removed from the general template. The TTAs should be made aware of the need to include this element on the follow up data forms when appropriate.
- ***Line 17 Product costing in factory.*** This never changes.
- ***Line 20, Product and Production engineering***. So many factories have different ideas of what this means, besides, this information never changes (M&E specialist observation, many factories report that they install production engineering after the GIPC time study course, so there is a measured result, but it is not clear if it is captured with this form, and if it is useful to GIPC).
- ***Line 23, Customer feedback***. No one ever enters anything here.
- ***Line 24, General work environment (rank 1-6).*** This never changes, so the factories are just not paying attention to it.
- ***Line 25, Waste controls.*** This never changes or is always left blank.
- ***Line 27a, Other train health, safety first aid etc.*** This never changes or is often left out. Keep 27b (internal factory training of GIPC methods), but suggest more focus on this variable.
- ***Line 28, Production planning.*** This never changes.

The productivity numbers and what they represented spurred debate. In general, the goal is to monitor the demonstration lines and determine if methods have spread to the rest of the factory. However, the factory managers usually report their best estimate of the total factory productivity. Productivity numbers vary considerably depending on the number of new lines and the length of time working on certain styles. There were contrasting points of view on whether GIPC programs affect a whole factory. The RTA thought nothing more than the sample lines were affected, and that those lines usually terminated in the first few weeks. The TTAs noted that the factories did start using some techniques in the factory (e.g., P_____ and C_____). This suggests that there is another element at work, perhaps the commitment of the factory managers. Supervisor training is important but perhaps not the decisive factor. This really underscored the difficulty, even with a quantitative result, in collecting outcome measures. Perhaps two sets of productivity data should be maintained, one for the initial demonstration line, and second, the factories' perception of

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FROM THE AMERICAN PEOPLE

Factory Information

Date:17/11/08 Time:...9h.30...AM.....

Item				
1	Factory name: Gawon Apparel			
2	Contact/authorized: MERCE DES CHA	Informed by:	Surveyed by:	Total company employees:....1051.....
3	Main product:top / pants short and long / shirt.....	Development:.....,Patterns:....., Markers:.....,CAD/CAM:.....,		Production days committed:.....6day.or.15day.....
4	**Data Source**	**Previous month:.....October.....**		**Previous month:.....**
5	3 major prod codes.....,and....% of tot product	1. code...../.....%, 2. code...../.....%, 3. code...../.....%		1. code...../.....%, 2. code...../.....%, 3. code...../.....%
6	Indirect personnel: Mg, Sup,Techn, Office	Indirect pers: 78		Indirect pers:
7	Direct personnel: sewing and manual operators	Direct labor: 973		Direct labor:
8	Absenteeism:	Working-days:16 Ab 31/day:.. .....2.95.....%		Working-days: ....%
9	Personnel turnover:	Persons/month:In 23-Stop 16... ...24.52.....%		Persons/month: ....%
10	Incentive system. and type *	Indirect labor: .....3....., Direct labor: .....2 - 1.....		Indirect labor: ....., Direct labor: .....
11	Days/m and hours /day- worked	26 days/m 8 hrs/d		days/m hrs/d
12	Overtime during the month:	Yes:..✓..... No:..... How many hr:.....2.....		Yes:..... No:..... How many hr:.....
	a. Grade of garment difficulty:	Easy: 11 %, Medium: 80 %, Difficult: 9 %		Easy: %, Medium: %, Difficult: %
	b. Standard time by difficulty	Easy: 8,27 min, Medium: 16.00 min, Difficult: 23.26 min		Easy: min, Medium: min, Difficult: min
13	Production: pcs cut	...297928.pcs, ...38.....dir pers, 2.....indir pers		.....pcs, ...dir pers, ...indir pers
14	Production: pcs sewn	...206003.pcs, ...684.....dir pers, 53....indir pers		.....pcs, ...dir pers, ...indir pers
15	Production: pcs packed	...202000.pcs, ...169.....dir pers, ...8....indir pers		.....pcs, ...dir pers, ...indir pers
16	Production Efficiency: / m	Yes:.....✓..... No:..... 35%		Yes:..... No:..... %
17	Product costing in factory?.....y;.....n	Yes:..... No:.....✓..... Comment:.....		Yes:..... No:..... Comment:.....
18	Defects per/month pcs...%; 2nd Qlty pcs....%	Def: ...26900..... pcs, .13...%, 2nd Qlty: 220pcs, 0.10%		Def: ..... pcs, ...%, 2nd Qlty: .....pcs, ...%
19	Standard times used in factory?	Yes:....✓..... No:.....80 % of pers		Yes:..... No:..... % of pers
20	Product and production engineering?	Yes:.. ✓..... No:..... Comment:		Yes:..... No:..... Comment: .....
21	Targets for operator, line, group, factory?	Yes:... ✓..... No:..... Comment:		Yes:..... No:..... Comment: .....
22	Product ctrl operator, group, line / hr/, /d?	Yes:....✓..... No:..... Comment:		Yes:..... No:..... Comment: .....
23	Customer feedback, what comment	Comment:		Comment: .....
24	General work environment (rank 1 to 5)	.....3....., Comment:		....., Comment:
25	Waste controls:	Mat. waste Ctrl:.....; Energy Ctrl:.....; Mach. down time:.....; Other:.....		Mat waste Ctrl:....; Energy Ctrl:....; Mach. down time:.....; Other:..
26	Technical training: supervi....operator....where?	superv:.....; operat:.....; in fact.....; outside fact.....; in line:.....		superv:.....; operat:.....; in fact.....; outside fact.....; in line:....
27	a. Other train:health,safety, fire, first aid, oth.	Yes:....No..... Nr: Corses..... Nr. Employ:.....		Yes:..... Nr: Corses..... Nr. Employ:.....
	b. Internal factory train of GIPC meth. & Syst.	Yes:.....No... Nr Corses: ..... Nr. Employ:.....		Yes:..... Nr Corses: ..... Nr. Employ:.....
28	Production planning (rank 1 - 5) ✓	.....3....., Comment:		....., Comment:
29	Observation :.....			
30	.....			

* = Type based on: 1- Nr. of pieces, 2- Nr. of minute produced, 3- Other..... Note: rank 1 to 5 (5 is the best)

Figure 1

overall productivity. For factories that implement GIPC methods across the factory, the number should be more reliable for the factory. Where the factories do not take on GIPC methods 100%, results might be less reliable.

Another suggestion for improving the measurement of productivity is to pick benchmark products, which are commonly produced, and ignore the newer styles, since establishing a benchmark for them is more complicated. The latter approach seems reasonable, but it too may encounter limits. As a final point, it is recommended here that the GIPC staff record the results from the demonstration line, baseline and after reorganization separately, regardless of which method is used for reporting by the factory. This will help keep the results from the sample line more fully in the picture for marketing purposes.

Factory interviews revealed that managers are not always fully aware of the results achieved in the demonstration lines after the time study course. There was a range of views on the effectiveness of the demonstrations, since they were often reported to the managers on paper or there were other variables in their mind that could explain changes in productivity, besides the methods. This has been an area of considerable challenge. The COP suggested that the technical team should discuss with the factory managers what they wish to see as success, before setting out to adjust the lines. The GM and the production managers may have different ideas about what they are expecting to see, but setting expectations and meeting them is a good step toward resolving some of the perceived conflicts in meeting objectives.

The most reliable results for productivity appear to come from factories that rolled out the GIPC program across the factory floor. Here the results were dramatic and unquestioned by the management. In the cases where only partial roll out or a demonstration line was achieved, measuring results was difficult to untangle from other factors.

FACTORY VISITS

The factories visited were a combination of those visited earlier and ones not visited earlier by the M&E officer. The companies seem to represent a spread of result from the GIPC programs. Some did substantial training and are reaping benefits across their factories. Others have only trained one or two people. New to this group of companies was one that was using the GIPC plotters for market making. This was an effort to expand the M&E beyond the core productivity work to technology application.

Regarding productivity, a common view of those interviewed was a misperception of the sample lines that were set up by the GIPC team after the time study course. Most factories said that the time study course helped build skills that are now used in the factories and they had value. But they were less impressed by the results from the sample lines. It was not that they did not think these had value; it was just that the value was not made clear to them in a way that was ***impressive***. This finding was consistent with comments by the TTAs and RTA that the demonstration lines often fell apart after a few weeks.

To illustrate and make use of the sample line to highlight the improvement in productivity, it seemed GIPC staff relied on memos to managers and perhaps the live interaction with selected staff in the factory. This process needs to be improved, perhaps by demonstrating the benefits to a

wider group of people, including the manager. Also, addressing the selection of sample lines may help the demonstration (e.g., taking on a line with a basic style that has been started at the same time as in another line) so as many factors that can be kept constant between the demonstration line and the non-demo line are done so.

Regarding marker making operations, the one comment about this service was more about availability of the GIPC services on weekends or at strange times. One of the reasons a factory would want marker making capabilities is to service problem orders, which means things are happening at the last minute. GIPC is not open on weekends or holidays. Trying to make more flexible service hours would help. For example, having weekend pick up for markers, even if the staff are not in the office making the markers, we just need to think more creatively. This fact was underscored on a Friday afternoon, when a factory that never had used the GIPC services for marker making called to see if the center could print some markers before the weekend. The staff required to do this was on vacation, and the other GIPC staff were not certain how to do this. In a professional way, the GIPC staff on vacation was called in to make the markers. This was a success. But it underscores the need in this area and the industry for unusual turnaround times. Anything that can be done to service this part of the market would be positive.

G_____

The factory manager M. C. was interviewed by the M&E officer and two of the USAID portfolio review staff: Barry Mac Donald and Paul Deuster of Checchi. At the time of the visit, the factory was experiencing a strike, so few operators were present. The Checchi staff largely asked questions about how the factory handled labor unions. The GIPC M&E officer asked about the performance of the GIPC program. Overall the factory regards the training favorably and continues to send workers the Center.

Concerns

- High worker turnover has resulted in many of those trained leaving (COP notes that at least some of this turnover resulted from the physical relocation of the factory).
- GIPC materials could be improved; they need more diagrams and materials in the classroom, perhaps some videos of the factory floor. (The COP notes that the RTA Heinz Reich was supposed to implement this, but it was not done.)
- Need to use real fabric in operator training, instead of paper. (COP notes that engineers say this is not correct, as the nature of the training is to promote speed and accuracy, this is best done with paper.)
- Would like to see more basic workforce preparedness. (COP notes that they have worked with the MOLVT to develop curriculum, but this is not a mandate of GIPC.)

Impacts

- Productivity on the factory floor is higher as a result of GIPC programs. It is estimated that efficiency is now 10–20 percentage points higher than before the programs. This is higher than the numbers used on our ROI and they are considered to be conservative.

M_____

The factory manager (Ms. V) was interviewed with the GIPC M&E officer and two of Checchi's staff: Paul Deuster and Don Zimmerman, who asked many questions about labor laws in Cambodia and the factory's experience with them. Some questions from the portfolio team were asked about the GIPC training. The factory manager responded positively to most questions.

Concerns:

- GIPC training is too expensive for factories in Cambodia and is too expensive relative to the other NGO programs (GMAC and CGTC training is assumed, and those are paid by other organizations); need to reduce the price.
- Should expand the QC program beyond sewing into packaging and finishing.
- Need more Cambodian trainers.

Impacts

- The factory manager said GIPC programs were in use throughout the factory and the QC system is core to their operations. She estimates current productivity between 55 and 65 percent; roughly the same as noted on the factory reports.

O_____ Garments

The M&E officer interviewed the GM M. R. O_____ is one of the factories that uses the GIPC marker making equipment on a subscription basis. O_____ also had several people attend the GIPC time study course.

Concerns

- The factory cannot pay for GIPC training; the home office will not allow it.
- The workers who were trained left for new jobs and this is a problem (The COP notes that only 2-3 managers were trained at GIPC; O_____ participated in other training programs and this is likely the source of this comment).
- Unions can also be a big problem with trying to change things.
- The GIPC marker making program usually works five days a week, but some flexibility would be appreciated, such as leaving markers with the front guard to be picked up on weekends or holidays. O_____ currently uses GIPC as its first choice, but uses other firms when GIPC is not open.

Impacts

- O_____ has not put in place any GIPC programs and the people who were trained left the factory for new work in other factories.
- For the first few weeks after GIPC Technical Adviser Reich visited the factory, productivity increased as Mr. Reich and the TTAs had reorganized and balanced the lines.
- The marker making program works well at O_____, an FOB supplier, and is priced well.

- The monthly subscription price is a good program and he would not recommend any change in that program.

The factory manager suggested that GIPC could offer more specific consulting services, where the consultants come in to simply rebalance lines, especially for the orders that require long production runs, where the benefits could be gained over a longer period. No need to train all the workers, just use GIPC technicians.

K_____

The factory was visited by the M&E officer. Several factory representatives were present, but the GM was not in the country. Mr. TP, Mr. TB and Mr. L A, finance manager, merchandising manager and chief R&D director were present. K_____ is Malaysian owned and managed. The factory was set up four years ago. The first couple of years were difficult. Now the managers are looking to programs such as GIPC to increase productivity in this new stage of factory development. K_____ has its own IE department and people, and they use GIPC programs to supplement their own programs.

Concerns

- GIPC training program was of medium quality.
- Having too many languages in the classroom can interfere with learning as one question is in Chinese, another in Khmer, and another English.
- The mixture of the students' skill levels is also problematic.
- Improvements in sample line from time study were not clear; the confusion lies in the fact that all lines experience some improvement in productivity over time, and it is hard to tell how much improvement was due to GIPC work. (The COP notes that the GM had a different opinion on this; production management was not in agreement with the GM on the need for this work.)
- The program needs to be explained better to the top management.
- As for GIPC operator training, the people trained as trainer were put back in the line and they now advise on sewing from time to time; the fact is, the supervisors and workers do not want to take people off the line to do operator training, they need as many sewers as possible. This may be shortsighted, but the factory really needs more sewing operators.

Impacts

- K_____ now has an IE department; they did not have one before GIPC.
- They are using the time study methods to set targets and monitor work.
- They now have a training department.
- Systems and structure are different than before GIPC for many of the above reasons.

K_____ asked if GIPC could do more training for the managers, not the kind of heavy time study or supervisor training used for the operators. Introducing management to new techniques and demonstrating them would be helpful. Knowledge sharing between managers in Cambodia could also be helpful. Encourage the managers to open their minds to different methods. He liked

the format of the GMAC lean production training, where they showed managers new systems in factories.

I_____

I_____ is using GIPC methods, but only in a partial way. Factory staff have taken courses in operator training, supervisor training, and time study. Most still apply what they learned, but only in a mixed way. It is getting hard to maintain the training discipline. When orders rise and the working pace increases, supervisors and workers start improvising and don't apply the learned methods. The basic knowledge of the workers and supervisors is to blame for this. Their thinking is short term; they want to solve problems as soon as possible when orders rise, rather than give up a little at first to gain more down the line. Everyone knows that the time study methods are better used than not, but the pressure of daily work often wins over long-term thinking.

Turnover at I_____ is also a problem. When people improve, they leave.

Ms. E thinks that more work needs to be done in basic education of the workforce in Cambodia, so they can absorb more and realize the benefits of knowledge. Now it is hard to get them to apply themselves and that will be an ongoing challenge for management.

	Name	Code	FY 2006			FY 2007				FY 2008					Summary		
			Assess	Train	Cons	Assess	Train	Cons	Pat	Assess	Train	Cons	Pat	Tech	FY06	FY07	FY08
1	Client data is confidential;	601		√			√	√			√	√	√		√	√	√
2	Code number at right identifies factory	602		√			√		√					√	√	√	√
3		603		√	X			X			√		√		√	X	√
4		604		√	X		X	X			√				√	X	√
5		605		√			X								√		
6		606	√	√			√	√	√		√	X	√		√	√	√
7		607		√			√								√	√	
8		608		√							X				√		X
9		609		√											√		
10		610	√				√		√				X		√	√	X
11		714		√											√		
12		611				√										√	
13		810				√						√				√	√
14		712				√										√	
15		713				√										√	
16		715				√	√				√			√		√	√
17		701					√									√	
18		702					√				X					√	√
19		703				√	√				√					√	√

	Name	Code	FY 2006			FY 2007				FY 2008					Summary		
			Assess	Train	Cons	Assess	Train	Cons	Pat	Assess	Train	Cons	Pat	Tech	FY06	FY07	FY08
20		704					√				√					√	√
21		705				√	√					X	√	√		√	√
22		706				√					√					√	√
23		708				√	√				X	X		√		√	X
24		709				√	√				X					√	
25		710								√	√						√
26		711				X										X	
27		716								√							√
28		801								√	X	X	√				√
29		802								√							√
30		803								√							√
31		804								√	√						√
32		805									√						√
33		806								√	√						√
34		807								√	√						√
35		808								√							√
36		809									√						√
37		811								√							√
38		812								√							√

	Name	Code	FY 2006			FY 2007				FY 2008					Summary		
			Assess	Train	Cons	Assess	Train	Cons	Pat	Assess	Train	Cons	Pat	Tech	FY06	FY07	FY08
39		813								√							√
40		814								√							√
41		815								√							√
42		816								√							√
43		817								√							√
44		000									X						√
45		000									X						√
46		000									X						√

Notes:

√= data correctly recorded in the GIPC database

X = data corrected or updated by the M&E officer