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TRADE AND INVESTMENT PROGRAM FOR A COMPETITIVE EXPORT ECONOMY (TIPCEE)

ANNUAL REPORT FOR PARTNERS
OCTOBER 2005 – SEPTEMBER 2006



October 2006

This publication was produced for review by the United States Agency for International Development. It was prepared by Chemonics International Inc.

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The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

Trade and Investment Program for a Competitive Export Economy
Second Year Annual Report

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ACRONYMS

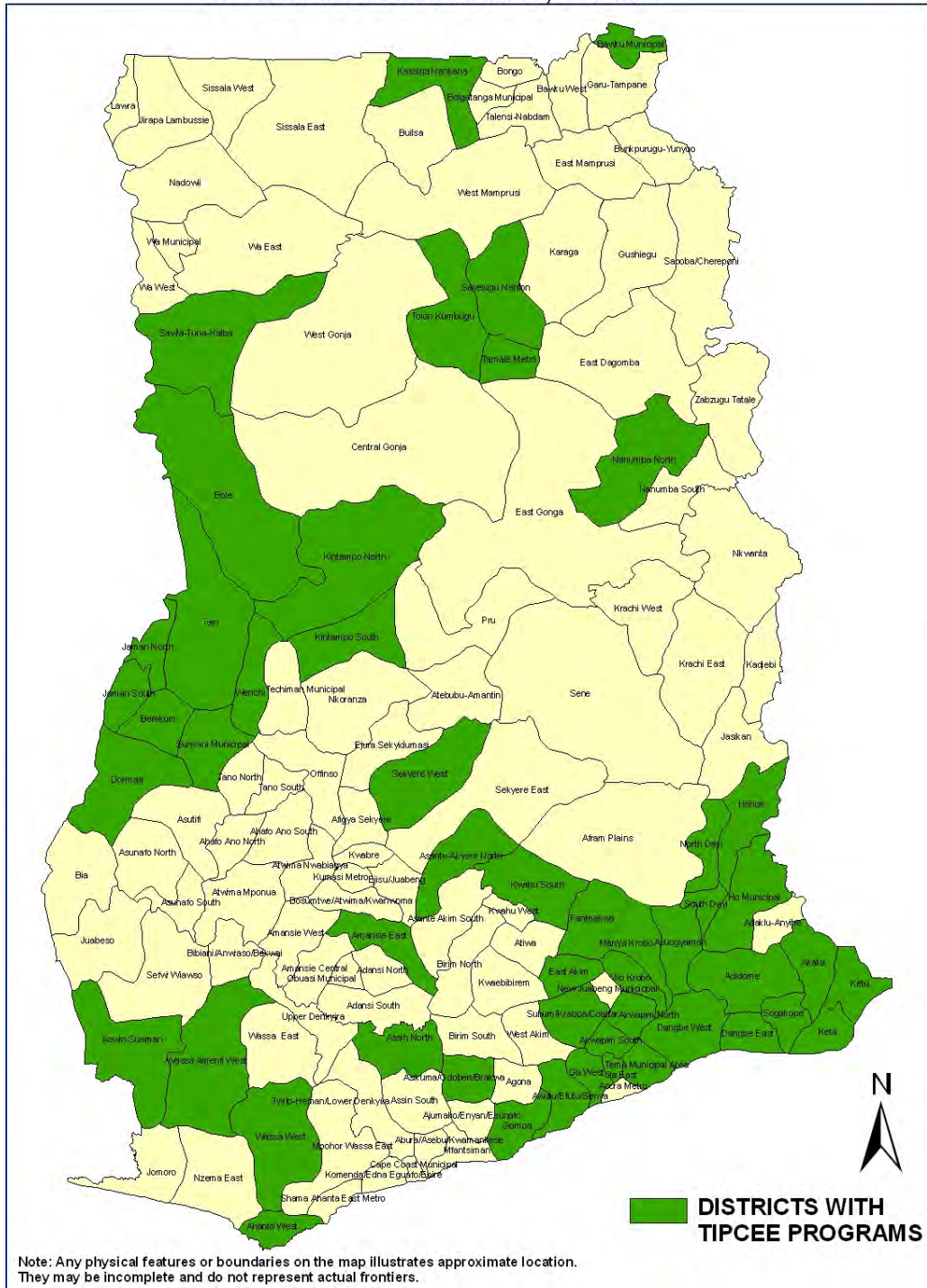
ACPG	Association of Cashew Processors, Ghana
ADRA	Adventist Development and Relief Agency International
AgSSIP	Agricultural Services Sub-Sector Investment Project
ASNAPP	Agribusiness in Sustainable Natural African Plant Products
ASYCUDA	Automated System for Customs Data Acquisition
BDS	Business Development Services
BOG	Bank of Ghana
BOTPAG	Botanical Producers Association of Ghana
BRC	British Retail Council
BUSAC	Business Sector Advocacy Challenge
CAF	Competitiveness Activities Fund
CEDIS	Customs Export Data Information System
CERSGIS	Center for Remote Sensing and Geographical Information Systems
CGE	Computable General Equilibrium
CIDA	Canadian International Development Agency
CRIG	Crop Research Institute of Ghana
CSIR	Council for Scientific and Industrial Research
DANIDA	Danish International Development Agency
DCA	Development Credit Authority
DFID	Department for International Development
EBD	Export Business Development
EE	Enabling Environment
EMOD	Economic Modeling
EU	European Union
EurepGAP	Euro-Retailer Produce Working Group-Good Agriculture Practices
FAGE	Federation of Associations of Ghanaian Exporters

FAS	Foreign Agriculture Service
FASDEP	Food & Agriculture Sector Development Policy
FIAS	Foreign Investment Advisory Service
FINSSP	Financial Sector Strategic Plan
GAP	Good Agricultural Practices
GAPTO	Ghana Agricultural Producers and Traders Organization
GCMS	Ghana Customs Management System
GCNET	Ghana Community Network
GDA	Global Development Alliance
GDP	Gross Domestic Product
GEPC	Ghana Export Promotion Council
GIFTEL	Ghana Investment Fund for Telecommunications Development
GIPC	Ghana Investment Promotion Council
GISPA	Ghana ISP Association
GPRS	Ghana Poverty Reduction Strategy
GSB	Ghana Standards Board
GT	Ghana Telecom
GTZ	Gesellschaft für Technische Zusammenarbeit
GSSP	Ghana Strategic Support Program
HACCP	Hazard Analysis of Critical Control Points
HAG	Horticulture Association of Ghana
HIPC	Heavily Indebted Poor Countries
ICOUR	Irrigation Company of Upper Region
ICS	Information and Communications Systems
ICT	Information Communication Technology
IEE	Initial Environmental Evaluation
IEHA	Initiative to End Hunger in Africa

IFPRI	International Food Policy Research Institute
IMF	International Monetary Fund
IPM	Integrated Pest Management
IR	Intermediate Result
ISP	Internet Service Provider
ISSER	Institute of Statistical, Social, and Economic Research
ITFC	Integrated Tamale Fruits Company
KRA	Key Result Area
LTS	Long Term Savings
MCA	Millennium Challenge Account
MCC	Millennium Challenge Corporation
MDBS	Multi Donor Budget Support
MISTOWA	Market Information Systems and Traders' Organizations in West Africa
MMYE	Ministry of Manpower, Youth and Employment
MOAP	Market Oriented Agriculture Programme
MOFA	Ministry of Food and Agriculture
MOFEP	Ministry of Finance and Economic Planning
MOTIPSD/PSI	Ministry of Trade, Industry, Private Sector Development and Presidential Special Initiatives
MPC	Monetary Policy Committee
MTEF	Medium Term Expenditure Framework
NBFI	Non Banking Financial Institutions
NCA	National Communications Authority
NDPC	National Development Planning Commission
NED	National Economic Dialogue
NEPAD	New Partnership for African Development
NLC	National Labour Commission

NTC	National Tripartite Committee
PAMPEAG	Papaya and Mango Producers and Exporters Association of Ghana
PEF	Private Enterprise Foundation
PERSUAP	Pesticide Evaluation Report and Safer Use Action Plan
PIET	Programme Intervention and Evaluation Template
PIR	Project Intermediate Result
PIVA	Partner Institutional Vulnerability Assessment
PMP	Performance Monitoring Plan
PPRSD	Plant Protection and Regulatory Services Department
PRSP	Poverty Reduction Strategy Paper
PSIA	Poverty and Social Impact Assessment
RF	Results Framework
RIA	Regulatory Impact Assessment
SAKSS	Strategic Analysis and Knowledge Support System
SARI	Savannah Agricultural Research Institute
SEC	Securities and Exchange Commission
SME	Small and Medium Enterprise
SPEG	Sea Freight Pineapple Exporters of Ghana
TIPCEE	Trade and Investment Program for a Competitive Export Economy
TIRP	Trade and Investment Reform Program
TQIL	Total Quality Investment Limited
TSSP	Trade Sector Support Program
USAID	United States Agency for International Development
VCTF	Venture Capital Trust Fund
VEPEAG	Vegetable Producers and Exporters Association of Ghana
WAGP	West African Gas Pipeline
WA	West Africa Mission (of USAID)

TIPCEE PROGRAM AREAS, GHANA



EXECUTIVE SUMMARY

The Trade and Investment Program for a Competitive Export Economy (TIPCEE) seeks to achieve exponential growth in sales of agricultural exports over the five-year life of the project by increasing the competitiveness of Ghana's private sector in world markets. Chemonics International, along with its consortium partners, CARE International, TechnoServe/Ghana, The Services Group, Geomar, Dexis International, Elan International, and International Business Initiatives, was awarded the United States Agency for International Development (USAID) TIPCEE contract on December 2, 2004. This annual report covers the period from October 1, 2005 through September 30, 2006 – Year 2.

During the past year, TIPCEE's Export Business Development (EBD) component further developed the supply chain systems needed to take Ghanaian horticulture to the next level where it can vie with its well-established competitors. This year, the project is launching a series of activities to extend the commodity reach to food and staple crops with market potential. On the policy side, the Enabling Environment (EE) component defined major priorities in several key sectors and made significant progress in reforming the Ghanaian policy and regulatory landscape to facilitate private sector opportunities.

The **EBD component's** priority activities support four major levels of the horticulture supply chain – smallholder farmer, nucleus firm, industry and market. In the current reporting period, the scope of commodities to be covered by TIPCEE expanded considerably. The initial group, high-value export crops targeting the international market, consisting of pineapple, mango, papaya, Asian vegetables and cashews has been supplemented by crops which target a regional market and/or domestic markets. These crops – citrus, tomato, onions and maize – are expected to carry potential commercial opportunities through the establishment and reinforcement of supply linkages between a wide smallholder farmer base and clearly identified downstream buyers. In addition to this new group, two other sectors were added, namely medicinal plants, with actions on voacanga and griffonia, which provide seasonal revenues to a wide rural population, and banana, which has the potential to become a major employer in rural areas.

During this reporting period, project-assisted firms exported horticultural goods valued at \$24.74 Million, representing a \$5.4 Million sales increase over last year. More than 3,514 rural households directly benefited from these efforts¹ and from other TIPCEE interventions.

At the *smallholder level*, TIPCEE's approach is to integrate smallholder farmers into export-oriented value chains with the ability to consistently meet market demands in quality, volume, efficient logistics and price. A focus on market information and criteria for export is supported with training in good agricultural practices, testing of new varieties, EurepGAP Option 2 certification and linkages to exporters. At the *firm level*, the project partnered with numerous individual export and processing firms to provide targeted technical assistance designed to improve their skills in smallholder outgrower schemes, financial management, quality control, supply base management, packaging, and marketing. At the *industry level*, TIPCEE – working with Ghana Standards Board (GSB) and industry associations – concentrated on adoption of industry norms for papaya, mango, pineapple, chilies, cashew, and Voacanga that were adapted to market requirements. EBD staff also launched

¹ Full results report by indicator can be found in Annex F

commodity consolidation or bulking initiatives to meet volume demand from exporters. At the *market linkage level*, the project collaborated with industry stakeholders, including National Horticulture Task Force (NHTF), Federation of Associations of Ghanaian Exporters (FAGE), and Gesellschaft für Technische Zusammenarbeit (GTZ), to organize Ghana Mango Week. With NHTF, FAGE, Ghana Export Promotion Council (GEPC), Export Development and Investment Fund (EDIF) and GTZ, TIPCEE helped present a new face of Ghana's horticulture industry at the Fruit Logistica fresh fruit trade fair in Germany in February. Industry promotional publications were produced in collaboration with associations and MOTIPSI, as well as market information tools, such as *Market Intelligence Report*. Intense interest in Ghana's horticultural commodities led to at least 10 pending deals as a result of contacts made with international buyers.

The Export Business Development component of TIPCEE includes a wide variety of activities carried out along its targeted supply chains. A common denominator for all activities is the introduction and subsequent mainstreaming of new technology and management approaches which will contribute to the transformation of the link between the small farmer and the end market.

Disseminating norms, standards. One of the main constraints to smallholder base supply chains is the difficulty of transferring a precise understanding of critical quality requirements, right up to the farm gate level. From its outset, TIPCEE has been partnering with GSB to develop an approach to standard-setting and dissemination which aims to facilitate such a widespread understanding of the quality requirements along the supply chain. In Year 2, four appropriation workshops involving producers, traders and exporters were conducted to ensure that the draft standards are consistent with market expectations for three varieties of pineapple, two varieties of papaya and Voacanga, a type of medicinal plant. Then, illustrative posters were produced and now serve as the basis of a widespread training program. 1,921 rural farmers and Voacanga collectors were trained during this reporting period. In Year 3, such programs are set to cover cashews, mango, okra, Griffonia, tomato and industrial citrus. The impact will be greater product uniformity which will improve farmer revenue by focusing agricultural practices on a desirable end result and by reducing the costs associated with handling and transporting low-grade produce.

Private sector managed inspection programs. The culmination of the standard-setting process is its use by industry in policing itself and ensuring consistent quality that will gradually build the Ghana brand in the eye of its business partner. Developed over TIPCEE's first two years, a pilot inspection program of fresh pineapple exports will be carried out on behalf of SPEG by a private inspection firm, under the oversight of GSB. This is an innovative format which will ensure that shipments of pineapple are all tested and scored against a common standard, thus identifying the areas where individual exporters and farmers must improve their practices to reach a uniform high quality, which is monitored on a continuing basis. SPEG intends to pursue the service once the pilot ends and will build the cost of the inspection service into the shipping cost structure being charged to their members. The approach will then be adapted to other crops such as mango and papaya.

Promoting EurepGAP Option 2. The EurepGAP standard defines the minimal farming best practices for food safety as required by European distributors. The cost of independent certification of farms against the standard proves a hurdle to including a wide base of small individual farms. The so called "Option 2" version of the EurepGAP standard enables well structured farmer groups to apply for certification if they can demonstrate a functioning internal control system. TIPCEE is currently collaborating with HEI/MOFA and MOAP/GTZ to help 10 pineapple farmer groups,

representing 150 small individual farms, to implement the Option 2 approach – with the aim to scale-up to the industry's smallholder base of 1500 farms employing more than 5000 farmers. TIPCEE will support other Option 2 initiatives, led by dynamic farmer-based organizations (FBOs) and nucleus operations, in the sectors of mango, papaya and Asian vegetables. The end result will be the mainstreaming of an innovative, practical certification approach which will guarantee that the smallholder farmers are using safe, fully traceable practices, and are linked to the fresh produce export chain.

Focusing on the supply chain management systems of nucleus firms. In the perishable produce sector, the linkage of small scale farmers and their groups to the export market requires a level of capital and management skills that is out of their reach. Yet, once they reach adequate productivity and quality levels, these groups provide an opportunity for central exporters and processors to access a new stable supply base without massive firm level investment. However the management of the 2000 farms supplying a citrus processor requires real-time logistics and production management systems, associated with tight and transparent cash flow monitoring systems in order to ensure the “golden rule” when working with small scale farmers: paying them on time, ideally upon delivery. Last year, TIPCEE initiated such projects with four lead exporters (Athena, Bomarts, Farmapine, Dansak) engaged in nucleus activity with a small farmer base estimated at more than 2,000 small farms. This year, these management systems will have been tested and serve as the basis for transfer to the rest of the pineapple, mango and papaya industries' nucleus operations. The addition of the citrus sector to the TIPCEE portfolio will require such interventions with juice processors who need to improve the efficiency of their linkage to a small farmer base estimated to exceed 10,000.

Commercial innovation pilots involving small scale producers. The MD2 pineapple crisis brought to the forefront the strategic importance of market focused agricultural innovation. Effective innovation needs to be rooted in sound market analysis and rely on a rigorous scientific approach. It also requires the integration of the farmers and exporters themselves from the outset, so that appropriation of results is continuous. During its first two years, TIPCEE either led or supported such approaches. Successful trials have been conducted with exporters and smallholders – more than 600 farms were involved – focusing on virus-resistant okra, Golden papaya and baby corn. TIPCEE is also providing support to the HEII/MOFA-led MD2 nursery program, which will have set up 120 group nurseries by 2007, and can be considered a standard setting example of transferring new techniques and technologies at the small farm level, which will translate in immediate revenue increases. In Year 3, TIPCEE will roll out 130 irrigation pilot sites equipped with low pressure drip systems, a large contingent located in the North of the country. This program will involve more than 400 small scale lead farmers in a program integrating drip irrigation and diversification crops/varieties such as papaya, melons, onions, tomatoes, French beans, chilies and okra.

Using GIS technology to develop smallholder crop management. Since its inception, TIPCEE has been introducing GIS technology as a tool to improve the monitoring and integration of widespread smallholder farm networks. TIPCEE has developed a first series of Geographic Information Systems, databases linking spatial information about the farm with descriptive and technical data associated with the farmers and the production plots. So far, detailed maps of the southern mango belt, the pineapple farms managed by SPEG members, and the Farmapine smallholder base have been developed. In all, over 820 farms have been mapped to date. These will be upgraded into integrated production monitoring systems, to be used by industry, individual firms and Government for traceability, monitoring of agronomic practices and siting of

infrastructure or private investment projects. In the coming year, TIPCEE will support the establishment of two landmark databases dedicated to citrus and cashew nuts. The databases aim to establish the widespread farmer base associated with each crop, estimated to number more than 15,000. Such a tool, when mainstreamed to market operators and support agencies, will ensure a productive linkage of all these farmers to the growing citrus and cashew markets.

The strategy of the **EE component** continues to be informed by its work with Government of Ghana (GOG) counterparts, private sector trade associations, and increasingly, interaction with the EBD component. It links closely to the GOG sector strategies, including the Financial Sector Strategic Plan (FINSSP), Private Sector Development Strategy, Trade Sector Support Program (TSSP), reforms associated with the revised Food and Agriculture Sector Development Policy (FASDEP), the Growth and Poverty Reduction Strategy II, and ongoing multi-donor budget support activities. The EE component focuses primarily on three sectors that are most likely to advance TIPCEE's goals and objectives: trade, finance, and agriculture. In addition, the project carried out specific initiatives in macroeconomic policy, energy, labour, and ICT (Information and Communication Technology) sectors. Through a combination of policy analysis activities, regulatory draft exercises, public-private dialogues and capacity building efforts focused on key GOG research and policy analysis units, assistance to the Government of Ghana is improving the policy environment for private sector growth.

Trade: Central to both components of TIPCEE, work in the trade area is fully integrated with the Trade Sector Support Program, recently launched by the Ministry of Trade, Industry, Private Sector Development and PSIs (MOTIPSI). The EE component focused on trade facilitation, installation of a fair and transparent import-export regime, and development of standards. Ongoing activities include establishing an effective rate of protection methodology to provide policy makers with an informed basis for designing tariff regimes, research on options for tariff board operations, and further streamlining the duty drawback scheme. The coming year will add activities to identify gaps in the implementation of the WTO Valuation Agreement and make recommendations for compliance, review the fee structure for goods clearance in Ghana and compare with competitor countries in the subregion, and examine efficiencies and operations of the free zone system.

Supporting the Private Sector Development Strategy, EE staff coordinated with the GOG and other donors to finalize the strategy for implementing new policy analysis tools – the Policy and Regulatory Impact Assessment (PRIA) and the Programme Intervention and Evaluation Template (PIET). Consolidation of the former Ministry of Private Sector Development into MOTI established a new policy support unit. TIPCEE awaits the unit's launch before proceeding with further dissemination and training activities.

Finance: The EE component's goal is to increase financial flows and efficiencies in the capital market and support FINSSP objectives. In fact, TIPCEE supported the development of FINSSP's monitoring and evaluation system. TIPCEE's resident advisor at the Ministry of Finance and Economic Planning (MOFEP) shepherded through new guidelines for the Venture Capital Trust Fund Act and is designing a training program for fund managers to operationalize the new facility. He co-authored a study to determine factors leading to high interest rate spreads at financial institutions and collaborated on a draft framework for regulating non-bank financial institutions (NBFIs) that will segment the sector into depository and non-depository institutions. In addition, the advisor oversees the capacity building efforts for the MOFEP macroeconomic policy analysis unit and new financial sector division. While

development of a Long Term Savings Scheme was delayed for further review, TIPCEE provided an international consultant who offered input based on best practices in similar countries. At the Securities and Exchange Commission, TICPEE experts drafted a developmental plan and regulatory framework for the over-the-counter market and drafted a new Takeovers Code to facilitate mergers and acquisitions in a transparent manner. In 2007, TICPEE will sponsor a Financial Literacy Week with MOFEP and other development partners aimed at educating the general population about the opportunities and pitfalls of credit and savings. A preliminary survey is underway to measure baseline financial literacy among three populations and geographic areas in Ghana. Results will inform the design of the Financial Literacy Week's activities.

Agriculture: The EE component assisted the Ministry of Food and Agriculture during this period via support for the Food and Agriculture Sector Development Programme (FASDEP) in collaboration with other development partners. EE staff hired a local expert to lead a participatory process with MOFA and stakeholders to develop the "building blocks" for a revised FASDEP, which led to TICPEE assistance with facilitating the revision process itself which is now in its final stages. In addition, the EE component provided support to improve the legal and regulatory framework for pesticide importation, manufacture, registration, labeling, advertising, inspection, distribution, storage, use, and disposal in Ghana, facilitating future pesticide work as outlined in the Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP). Seven regulations were drafted for the implementation of the Pesticide Control and Management Act (Act 528). This culminated in a stakeholders' forum in January 2006 to discuss the draft regulations. Issues related to a proposed pesticide management fund and its use are currently being addressed, in consultation with industry players and regulators, as a follow-up to the forum.

Macroeconomic, monetary and fiscal: The EE component's work with the Bank of Ghana supported the GOG to maintain a stable macroeconomic policy environment. During the first half of this reporting period, TIPCEE embedded a resident advisor at the Bank of Ghana who provided technical input in drafting the new foreign exchange bill, anti-money laundering legislation and credit-reporting bill. The Minister of Finance presented the draft Foreign Exchange Bill to the Cabinet Subcommittee of Finance and Economy where it now awaits full Cabinet approval. TIPCEE provided technical support for five reports on fiscal, monetary, external, inflation and financial sector developments after each of the three Monetary Policy Committee meetings in November, January, and March. The advisor supervised the capacity building efforts of the BOG's research department, including ongoing work on a macroeconomic model. In May, the resident expert left the TIPCEE project as he was named Deputy Governor of the Bank of Ghana. Congratulations Dr. Bawumia!

Labour: The EE component developed an operational strategy for the National Labour Commission (NLC), a new agency to facilitate the resolution of labour disputes, and trained mediators and commissioners with the Federal Mediation and Conciliation Service and the National Labor Relations Board in Washington, DC. The NLC now fields an average of three disputes per week and is disseminating sector-specific information to employees, management and Government agencies about the new Labour Act, which changes dispute resolution procedures. Development of a communications strategy for the NLC is underway and data management enhancements are programmed for the coming year.

Energy: Eighty-five percent of the construction work on the West Africa Gas Pipeline is completed, and natural gas is expected to be available in Ghana by December 2006. TIPCEE took the lead in supporting the Ministry of Energy, the Energy

Commission (EC), Public Utilities Regulatory Commission (PURC), and other stakeholders to develop a roadmap of required activities to develop the secondary market for natural gas. The EE component supported a public-private dialogue on a draft policy framework and provided technical assistance to the EC and PURC to develop regulations governing licensure of the local natural gas distribution system, standards of performance of that system, safety and technical requirements for construction and maintenance of the distribution pipeline; and a tariff methodology for pricing natural gas for local consumption. These regulations are currently with the Ministry for final review.

ICT: To increase efficiencies in accessing market information and transacting business, three information and communication technology draft bills were reviewed and finalized: the National Telecommunications bill, the draft Telecoms bill, and the Electronic Transactions bill. The draft bills address issues such as independence of the regulator; the National Communications Authority (NCA) and its openness and transparency in the exercise of its regulatory powers; the convergence of voice, data, and video technologies; increased competition in the industry; and universal access to ICT. The USAID Last Mile Initiative (LMI) was launched in May to improve connectivity from farmer to packhouse and packhouse to port, thus streamlining logistics and better integrating smallholder farmers into export commodity supply chains. The EE component is also working through LMI with the Ghana Internet Service Providers Association (GISPA) to improve their advocacy skills to create a more conducive environment for private sector development. GIS mapping exercises plotting the ICT needs of major horticulture export zones informs GIFTEL as they plan expansion of the mobile phone network.

This summary concludes with four Success Stories, a First Person account, and a Case Study highlighting TIPCEE's work during the reporting period.



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FIRST PERSON Okra Transforms Farmer Group

An agricultural diversification project brings much-needed income to Ghanaian peasant farmers



Daniel Fuafo, using protective gear, harvests okra from the Kotoko Takpoom Vegetable Growers' farm in Greater Accra.

PHOTO: JUSTIN MORESCO

"This will help us solve our poverty. It will get us more money to pay for school fees. And it helps the community because we have hired people during the harvest periods."

—Daniel Fuafo

U.S. Agency for International Development
www.usaid.gov

The laws of supply and demand had not been kind to the 12-member Kotoko Takpoom Vegetable Growers group in the Greater Accra region of Ghana. The farmers were growing cabbage, peppers and tomatoes, their planting and harvesting geared to the area's two annual rainy seasons. Many others had the same plan, however, and harvest time regularly saw a surge in supply and a sharp drop in prices. For half an acre of their vegetables, the Kotoko group earned the equivalent of U.S. \$30.

But since beginning participation in a USAID-funded agricultural diversification project in March 2006, the Kotoko group has focused on growing okra, which offers greater earning potential and an accessible export market. USAID's Trade and Investment Program for a Competitive Export Economy (TIPCEE) provided the group with hybrid okra seeds, technical assistance, a production manual, and protective clothing and equipment.

The Ghana Ministry of Food and Agriculture provided the group with a water pump which they used to set up an irrigation system – further honing their competitive edge. For the group's first trial run, they cultivated 0.8 acres of okra. After 10 weeks, the yield of more than a metric ton of okra earned the group U.S. \$720, a more than twenty-fold increase in earnings. By September the group had another acre under cultivation which has already yielded about half a ton of okra.

For peasant farmers, the increase in earnings has been tremendous, said group member Daniel Fuafo, 48, who has eight children. "This will help us solve our poverty. It will get us more money to pay for school fees. And it helps the community because we have hired people during the harvest periods. No more tomatoes, cabbage or peppers."

Fuafo said that previously the group could go weeks without earning any income. But now a local exporter is asking for year-round supplies of okra. The Kotoko group hopes by next year to have six acres of okra under alternating cultivation, providing nearly constant yield.

More than 700 farmers in 50 groups are participating in the okra trials. The projection is that 100,000 TIPCEE-assisted farmers will increase their incomes by the end of 2009.



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CASE STUDY

Streamlining Labor Dispute Resolution

Ghana's new National Labour Commission builds strong reputation after USAID-funded training



Ghana's National Labour Commission in Washington D.C.

Building trust between the NLC and Ghanaian workers and employers is a key goal of TIPCEE's assistance.

U.S. Agency for International Development
www.usaid.gov

Ghana's National Labour Commission (NLC) was established in July 2006 as part of a landmark new labor law. The commission was designed to resolve Ghana's labor disputes quickly and avoid cumbersome and costly court battles. But as a young institution without precedent for guidance, the NLC sought information on best practices and assistance from well-established dispute resolution institutions.

To build the NLC's capacity, USAID's Trade and Investment Program for a Competitive Export Economy (TIPCEE) helped them develop an operational plan and organized a training course in Ghana in arbitration and mediation. U.S. and Ghanaian labor experts led the week-long workshop that covered mediation processes and practical role-playing exercises.

TIPCEE then sent four NLC commissioners and the administrator to Washington, DC for an advanced training course with the cooperation of the U.S. Federal Mediation and Conciliation Services and the National Labor Relations Board, the NLC's counterparts in the United States. In addition, awareness workshops were conducted with Parliamentarians and key labor groups to educate them further on the new procedures for dispute resolution. A communications strategy is now underway for disseminating information to key stakeholders.

Based on the Washington, DC experience, the commission is developing easy-to-understand brochures and other sector-specific communication materials on labor laws and dispute resolution targeted at workers, employers, and government officials. The NLC continues the relationship with its Washington counterparts via email, seeking guidance on best practices and procedural models.

As a result, the NLC is building a strong reputation among Ghanaian workers and employers, in part due to TIPCEE's assistance. The commission receives, on average, three mediation cases per week, and 48 mediators and arbitrators are now listed in NLC's database.



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SUCCESS STORY

Exporters Get Serious About Quality

New standards and quality control checks at pineapple packhouses and ports



Workers at Bomarts Farms packing fresh pineapple for export.

PHOTO: OLIVIER ASSELIW

"With this inspection program, the quality will be improved and the products will be more acceptable on the international market," says Stephen Mintah, SPEG General Manager.

U.S. Agency for International Development
www.usaid.gov

Pineapple is Ghana's most important export fruit, generating more than U.S. \$59.2 million in 2005. But meeting international standards for high-quality pineapples has often been difficult for Ghanaian exporters, leading to rejection of fruit. As a result, farmers, exporters and the Ghana Standards Board (GSB)—the agency that regulates industry standards in the country—have increasingly recognized the need to improve the quality of pineapples harvested in Ghana.

USAID's Trade and Investment Program for a Competitive Export Economy (TIPCEE) collaborated with the GSB and exporters to create illustrated posters with easy-to-follow instructions for farmers and exporters to improve the quality of their products and prepare them for an inspection program. Colorful illustrations show ratings for pineapple shape, maturity and fruit condition, among other important indicators, and TIPCEE will distribute more than 4,000 of the posters.

TIPCEE is working with the Sea-Freight Pineapple Exporters of Ghana (SPEG) to implement a one-year pilot inspection program involving 10 major exporters in the country. SPEG is so confident in the program's value that the association signed a two-year extension with the inspection company before the pilot program began. Similar inspections programs in neighboring Ivory Coast have proven very successful in helping exporters compete for lucrative markets.

"The absence of quality control systems over the years has not been helpful to the industry," said Stephen Mintah, General Manager of SPEG. "With this inspection program, the quality will be improved and the products will be more acceptable on the international market."

Mintah said the industry may later consider extending inspections to the point of discharge, where the fruits are offloaded from ships for international buyers, thereby ensuring an even higher standard.

TIPCEE aims to help the pineapple industry triple its sales by the end of 2009.



USAID | GHANA
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SUCCESS STORY

Small Farmers Certified for Export

EurepGAP certification is a must for Ghanaian pineapple exporters



An MD2 smallholder farmer tending plantlets on his farm.
PHOTO: OLIVIER ASSELIN

The 15-month program will provide farmers with training in safe practices, field documentation, traceability and field-level infrastructure.

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Ghana's pineapple industry, producing the country's most important export fruit, relies on small farmers for up to 40 percent of total export volume. But this farmer base, comprising more than 5,000 households, has been hit hard by the shift of international preference towards the "extra sweet" pineapple, away from the traditional Smooth Cayenne variety in Ghana. In addition, exporters have had to adapt their operations to meet their clients' requirements for EurepGAP certified production, which guarantees the safety of produce.

USAID's Trade and Investment Program for a Competitive Export Economy (TIPCEE), in collaboration with Ghana's Ministry of Food and Agriculture (MOFA) and the German Technical Cooperation (GTZ), launched a pilot program in May 2006 that aims to assist 150 small farmers to achieve EurepGAP Option 2 group certification.

The 15-month program will provide farmers with training in safe practices, field documentation, traceability and field-level infrastructure. The focus will be to develop systems integrating decentralized crop extension and exporter staff in the training and management of farmer-based organizations. Participating farmers will also benefit from a MOFA initiative targeting small farmers who wish to convert to the new extra sweet variety. MOFA's Horticulture Export Industry Initiative provides planting material to qualified groups.

During his recent visit to Ghana, EurepGAP Chairman Nigel Garbutt emphasized the importance of the private sector in successfully implementing certification programs. He said the resulting internal control system would become more sustainable as the linkages to export markets solidify.

It is hoped that eventually the remainder of small pineapple farmers in Ghana will achieve the EurepGAP group certification. The country's exporters are keen to establish strong links with EurepGAP certified farmer groups, who soon will reclaim the important place they once held in Ghana's pineapple export industry by raising their standards to meet ever-evolving market demands.



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SUCCESS STORY

Ghana Pineapple Juice Hits Mainstream

Local fruit juice company strikes multi-million dollar deal with Coca-Cola



Dr. Tony Mensah, Athena Foods Ltd managing director, outside his factory in Tema, Ghana.

Athena's plant is set to supply 500 MT of pineapple concentrate to Coca Cola during the next year. "If all goes well," says Athena's owner, Dr. Mensah, "we'll have doubled our production by 2007."

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Like most people, Dr. Tony Mensah doesn't know for sure what gives Coca-Cola's *Five Alive* fruit drink its unique flavor. What he does know, is that soon, one of the ingredients will come straight from his factory.

Dr. Mensah is the managing director of Athena Foods Ltd, a Ghanaian company that produces juices and concentrates for export to Europe and the domestic market. With nearly 50 employees, Athena's sales reached \$1.5 million in 2004.

In early 2005, Coca-Cola Nigeria contacted Athena to become a major supplier of pineapple concentrate for use in the multinational's *Five Alive* fruit drink. After successfully passing strict quality control procedures, Athena still had to clear some hurdles before getting Coca-Cola's seal of approval.

With technical and financial assistance from USAID's Trade and Investment Program for a Competitive Export Economy (TIPCEE), Athena was able to refurbish its factory to improve operational efficiency, implement international quality standards and improve the working environment and security. Now boasting a new micro-lab, a floor covered with corrosion-resistant epoxy, and a modern factory layout, the plant is set to supply 500 MT of pineapple concentrate to Coca-Cola during the next year. This amount alone will require 6,000 tons of fresh pineapples sourced mainly from smallholder producers.

"If all goes well," says Dr. Mensah, "we'll have doubled our production by 2007." And two years hence, Athena's supplies to Coca-Cola are projected to reach 2000 MT, requiring a yearly supply of 24,000 tons of fresh pineapple coming directly from a network of smallholder producers. USAID/TIPCEE will continue providing support to smallholder growers to improve their yields.

Most smallholders grow the local Smooth Cayenne pineapple variety that now floods the market because of low demand from international buyers. For those unable to convert their fields to the new MD2 pineapple variety, currently demanded by export markets, USAID/TIPCEE's work to promote relationships such as the one with Athena gives them a reliable market to keep selling their produce. "What this [deal] means is a constant buyer, and a large demand that will allow them to grow without the additional risk," says Dr. Mensah.



USAID | GHANA
FROM THE AMERICAN PEOPLE

SUCCESS STORY

Raising the Bar for Ghana Papayas

High quality standards and sea shipping are keys to EU market for Ghana exporters



Photo: Olivier Asselin

Farm worker during harvest at Dansak Farms, Nsawam, Ghana.

"Definitely. . ." said John Nkansah, owner of Dansak Farms, "shipping by sea, we can be competitive with the Brazilians and everybody else."

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Until a few weeks ago, Steven Azaglo knew nothing of anthracnose. Despite working on papaya plantations for three years, he had no idea that the fungal disease would more likely make its way into the fruit if the stem was cut too short. European papaya importers, on the other hand, were more discerning.

As tropical fruits gain popularity worldwide, prices are driven down and small exporters must increase quality and reduce costs to compete. Ghana lacks quality standards regulating the export of papayas, and small-scale farmers lack the expertise vital for high-quality, consistent harvests. Because logistics are easier, most of Ghana's papayas make their way to Europe by air instead of by sea. This limits the volume of exports, but also contributes to higher costs for Ghanaian exporters and translates into less profit for farmers.

Today, as he carefully picks a Golden papaya, Azaglo makes sure the stem is at least a quarter of an inch long. Instead of dropping it from a height – like he used to – Azaglo gently places the papaya in the harvesting container sitting on his coworker's head. Thanks to USAID's Trade and Investment Program for a Competitive Export Economy (TIPCEE), aimed at improving the competitiveness of Ghanaian papaya exporters, Azaglo and other workers at Dansak Farms now produce export-quality fruit.

From farm planning to harvesting, from packing to shipping, USAID/TIPCEE and its partners help Dansak Farms meet international quality standards. Additional assistance will support the irrigation of one hectare of Golden papaya, the preferred export variety, for 10 small-scale farmers, allowing them to produce for export while continuing to supply local markets.

Two trial sea shipments sponsored by USAID/TIPCEE have already allowed Dansak to export over 12 metric tons of fruit to Europe with results exceeding customers' expectations. For John Nkansah, owner of Dansak Farms, shipping by sea means making 15-20 percent more profit while selling at prices 15-20 percent lower. In 2004, Ghana exported nearly 1,900 tons of papaya to Europe. Brazil, the world's largest producer, exported nearly 30,000 tons. Papaya is fast becoming the next "exciting" tropical fruit after pineapple and mango, and because of its favorable climate and geographical location, Ghana could position itself as one of the main suppliers to Europe. With support from USAID/TIPCEE, Ghanaian farmers will be able to provide world markets with top-quality papaya at competitive prices.

SECTION I. INTRODUCTION

The Chemonics International consortium presents this second year annual report under the United States Agency for International Development (USAID) Trade and Investment Program for a Competitive Export Economy (TIPCEE). Chemonics International, along with its consortium partners — CARE International, TechnoServe/Ghana, The Services Group (TSG), Dexis International, Elan International, Geomar, and International Business Initiatives — was awarded the TIPCEE contract on December 2, 2004.

This annual report covers the period from October 1, 2005 through September 30, 2006. Every August, the TIPCEE technical team, with Chemonics' home office, TechnoServe/Ghana, CARE, and TSG, conduct a planning workshop. Participants included TIPCEE expatriate and Ghanaian technical staff, project management personnel and technical experts from subcontractors, Government of Ghana counterpart agencies, and other donor partners whose programs are closely integrated with the TIPCEE project activities. The work plan outlines the goals, strategies and targets for the coming year and each annual report describes the progress made toward those targets.

Below we present the overall approach to implementation and summarize our collaboration with partner organizations. In the following sections, we describe project activities for the two TIPCEE components, Export Business Development (EBD) and Enabling Environment (EE). Annexes to this report provide additional information on our project strategy; lists of our memoranda of understanding, subcontracts, fixed amount reimbursable agreements (FARAs), and progress reports on our monitoring and evaluation targets by indicator. We have also included a summary of EBD activities by commodity for easy reference.

A. Project Overview

The goal of TIPCEE is to increase the competitiveness of Ghana's private sector in world markets through an improved enabling environment and a strengthened capacity of the private sector to respond to market demands. The objectives for TIPCEE can be grouped into four broad categories: expanded market access, more integrated industry/cluster activities, improved performance of enterprises and smallholders, and key policy and regulatory constraints addressed and solutions proposed.

TIPCEE will increase the performance, value, and innovation of Ghana's export industries in world markets by (a) strengthening selected commodity supply chains from farm to market (and supermarket), and (b) working with policy makers and implementers, and private sector stakeholders to improve the legal and regulatory environment for private sector operation and investment.

In order to meet the demands of the global, regional and domestic marketplace, TIPCEE's Export Business Development team enhances Ghanaian businesses' and farmers' ability to identify market opportunities; meet the stringent quality standards of export markets and domestic processing firms; form strategic partnerships with agri-business firms in the U.S., Europe, Ghana and other countries; increase purchases from smallholders; and improve the responsiveness and efficiencies of the commodity supply chains to continue to provide both the quantity *and* quality to meet market demand.

TIPCEE links its Enabling Environment team of international and Ghanaian professionals with government officials, policy research institutes, business associations and other private sector groups to improve key policies and regulations that currently constrain business development in Ghana, primarily in the areas of trade, financial markets, labour, and agriculture.

Both TIPCEE components — Export Business Development and Enabling Environment — are designed to complement and build on the work of other USAID activities, as well as initiatives of the Government of Ghana (GOG) and other donor programs, including those of the pooled donor resources that fund GOG development activities.

Annex A presents a detailed project strategy document.

Adding food crops to the portfolio of commodities

To complement the current basket of high value export commodities and provide greater outreach to smallholder farmers, TIPCEE has launched its expansion into more traditional food crops, identifying maize, citrus, onions, and tomatoes as new target commodities. Like TIPCEE export program, the food crops initiative will also focus on market-led activities: maize, tomatoes and citrus — primarily for processing — and onions for domestic and regional trade. All TIPCEE activities will continue to focus on market-led activities designed to improve supply chain systems, including seed and input supply sourcing, demonstration plots for improved agronomic practices, organization of bulking points and transport systems, and improved logistics along the value chain.

B. Collaboration with Partners

USAID/GHANA

ADRA. A Memorandum of Understanding is currently in negotiation between TIPCEE and the Adventist Development and Relief Agency (ADRA) to create direct links between the EBD component's market development work and the grassroots activities funded by ADRA's Title II activities, including work with mango, cashew and citrus growers. ADRA provides a large base of new target farmers and TIPCEE will integrate them into the market supply chains. ADRA staff, and extension agents working with ADRA, attend TIPCEE trainings related to mango, citrus and cashew production, grading, and marketing. In the coming year, they will be involved in mapping and surveying activities related to setting up Geographic Information System (GIS) databases for these crops.

Biosafety. USAID's Program for Biosafety Systems (PBS) is designed to assist developing countries to enhance biosafety policy, research, and capacity. Recently the Ghana PBS team conducted a market assessment for several food crops in Southern Ghana. With TIPCEE assistance they extended their research to regions in the North to inform TIPCEE's planned expansion to food crops in those locations, including onion and tomato. In Year 3, TIPCEE will continue to coordinate with PBS activities focusing on staple crops.

GSSP/GEPA. TIPCEE is collaborating with USAID's Ghana Strategic Support Program (GSSP), the Ministry of Food and Agriculture (MOFA), the Horticulture Export Industry Initiative (HEII), and the Ghana Environmental Protection Agency (GEPA) to integrate the ongoing GIS work of all projects and reconcile multiple crop databases into one resource housed at MOFA and accessible to all stakeholders. TIPCEE integrates MOFA extension agents into all mapping activities, and regular meetings ensure compatibility of approaches and data management.

GDA. As stated in the recently approved USAID/Ghana Mining Global Development Alliance (GDA), TIPCEE will contribute to the identification and development of commercial crops to be introduced in collaboration with Opportunities

Industrialization Centers International (OICI) and the other GDA partners in the mining communities in Asutifi and Wassa West districts. TIPCEE has participated in the stakeholder consultations at the national and district levels as part of the work planning which began in September 2006. The USAID GDA with Royal Ahold continues with an Ahold staff member dedicated to TIPCEE to ensure a market linkage with the multinational supermarket chain.

Last Mile Initiative. With USAID/Ghana and USAID/Washington, TIPCEE developed an innovative Last Mile Initiative proposal which is described in more detail in the EBD section. The Information and Communication Technology (ICT) initiative will use Internet and SMS connectivity to link smallholder farmers to exporting firms and the port. It is fully integrated with current EBD work to maximize leverage of allocated resources. The EE component will expand its work under the Last Mile Initiative with the Ghana Internet Service Providers Association (GISPA) to develop advocacy skills and bring together the GOG and private sector operators to expand access to new ICT web-based opportunities.

USAID/WEST AFRICA

In the coming year, TIPCEE's EBD component will extend its integration with USAID/WA initiatives through greater involvement in the African Cashew Alliance and the upcoming seed alliance. The regional USAID program promotes both alliances. In addition, coordination with MISTOWA (Market Information Systems and Traders' Organizations in West Africa) will continue to leverage their trade data collection activities to inform TIPCEE's commodity expansion into regionally-traded food crops. Collaboration continues with the West Africa Trade Hub to coordinate cashew marketing activities and access to new markets.

In the energy sector, to complement the USAID/WA-funded West Africa Pipeline project, the EE component supported drafting policies to ensure safety and the development of secondary natural gas markets in Ghana.

MILLENNIUM CHALLENGE CORPORATION

During the past nine months, the Millennium Challenge Corporation (MCC) design teams consulted extensively with TIPCEE staff. As a result, the Ghana MCC compact outlines an agribusiness development program that is highly complementary to the TIPCEE approach and builds on innovations and pilot efforts developed during TIPCEE's first 18 months. MCC's vision, developed with USAID, is for TIPCEE's EBD interventions to set the stage for a large expansion, once MCC is rolled out, by identifying new opportunities and piloting approaches in both horticulture and food crop sectors. During Year 3, pilot activities related to numerous supply chain systems, seed trials, and irrigation demonstrations will be completed and ready for expansion by MCC agriculture projects in new districts.

GOVERNMENT OF GHANA MINISTRIES

The EBD component continues its collaboration with the GOG departments and agencies which operate in the targeted sectors. The EBD team forged a close partnership with Ministry of Food and Agriculture's Horticulture Export Industry Initiative (HEII), mobilizing smallholders to support HEII's MD2 dissemination program, and designing an innovative pilot to adapt the EurepGAP Option 2 protocol to the specific needs of pineapple farms. Collaboration protocols have also been finalized with the GOG Cashew Development Project (CDP), the Savannah Agricultural Research Institute (SARI) and the Irrigation Development Authority (IDA) to provide scientific and technical monitoring to several pilot TIPCEE initiatives.

MOFA, with support from the African Development Bank, is launching the Export Marketing and Quality Awareness Project later this year that will focus on improved planting materials, good agricultural practices and enhanced infrastructure for non-traditional exports. TIPCEE will seek to collaborate by sharing best practices in these areas and coordinate activities to ensure complementarity and reduce commodity overlap.

This year, the Ghana Export Promotion Council (GEPC) will be part of the public/private working group tasked with coordinating Ghana's presence at the 2007 Fruit Logistica trade fair in Berlin, and will continue to participate in TIPCEE's ongoing efforts to integrate analysis of the EUROSTAT trade database into export-promotion activities

Coordination with the Ministry of Trade, Industry, Private Sector Development and Presidential Special Initiatives (MOTIPSI) and its agencies on the EBD side has focused on support for the Ghana Standards Board's (GSB) work on Norms and Standards. GSB staff will be fully integrated into a year-long quality assessment pilot in the pineapple private sector. EBD is also collaborating with Ministry staff on various investment promotion ventures, notably supporting the Chiquita Banana expansion program in Ghana.

The EE component is fully integrated with the appropriate GOG Ministries and agencies. A full-time TIPCEE staff member is embedded in the Ministry of Finance and Economic Planning (MOFEP) to oversee specific policy activities that support FINSSP, as well as substantively contributing to capacity building efforts. An additional advisor recently completed his term with the Bank of Ghana.

Work in the trade sector coordinates with other donor efforts through the MOTIPSI Trade Sector Support Program (TSSP) and Private Sector Development Strategy. The TSSP process produced a detailed work plan for MOTIPSI staff. TIPCEE and other donors identified areas for collaboration with MOTIPSI at the activity level. In agriculture, TIPCEE provided a consultant to support the revision of the Food and Agriculture Sector Development Policy (FASDEP) and participates in the ongoing revision process. In other sectors, all TIPCEE activities are integrated into Ministry strategic plans with activity-level scopes of work developed in collaboration with key GOG staff.

OTHER DONORS

Working in a number of sectors, it is essential that TIPCEE coordinate and collaborate with all pertinent donor efforts. To this end, the project's efforts support the goals and activities of the Multi-Donor Budget Support group and the associated GOG strategic plans, such as the Financial Sector Strategic Plan (FINSSP), Trade Sector Support Program (TSSP), and Private Sector Development Strategy (PSDS). Through USAID representation on sector-specific donor working groups, TIPCEE is informed of any changes or new priorities.

The EBD component has developed a strong collaborative relationship with GTZ's Market Oriented Agriculture Programme (MOAP) project resulting in successful industry events such as the Fruit Logistica trade fair, Mango Week, and now the EurepGAP Option 2 pilot. The partnership has worked seamlessly with MOFA/HEII in the latter program. Coordinating MOAP and TIPCEE's interventions can maximize impact in other areas; for example, citrus value chain support and collaboration on mango processing is envisioned in the near term.

EBD staff have attended project planning activities for SNV's (Netherlands) new mango program and are discussing collaboration in the areas of identifying funding sources for post-harvest infrastructure investments, value chain development, and a certified seedling program, trade associations, and buyers of commodities.

The EBD component collaborated extensively with the World Bank Institute (WBI) and International Food Policy Research Institute (IFPRI) in Year 2 for the organization of a very successful training seminar on the competitiveness of horticulture supply chains involving video conferencing between six sub-Saharan African countries. The collaboration will continue through Year 3 by contributing to WBI's design of training programs, based on the material developed for the initial seminar, which could be adopted by local training institutions at the undergraduate, graduate and professional levels. Ghana, Senegal, Mali, Burkina Faso and Uganda have been selected as pilot countries for this work; TIPCEE will provide input to the design and adoption of the material by institutions such as the Ghana Institute of Management and Public Administration (GIMPA) and the University of Ghana-Legon.

In ICT, the Ministry of Communication faced a disruption in ongoing work to liberalize the ICT industry regulations due to a funding gap from the World Bank. TIPCEE stepped in to analyze pending legislation in three areas, provide input and feedback, conduct public private dialogues, and shepherd the regulations through Parliament.

TIPCEE staff members also collaborate with the World Bank in the financial sector, specifically in the ongoing review of the long-term savings scheme and assistance with the launch of the Financial Sector Division of MOFEP.

MOFA received TIPCEE's technical assistance, in collaboration with the UK Department for International Development (DFID), to support the revision of FASDEP. This cooperation is expected to continue throughout the next reporting period during which TIPCEE specialists are expected to work with a newly-hired DFID advisor at MOFA.

PRIVATE SECTOR

The EBD component works primarily with private sector partners – smallholder farmer groups, industrial farms, export and processing companies, and supply chain support firms. Several are described under “nucleus firms” in the next section.

TIPCEE is collaborating closely with the Federation of Associations of Ghanaian Exporters (FAGE) and the National Horticulture Task Force (NHTF), housed at FAGE. With these entities, TIPCEE supported activities which contribute to building a GhanaGAP framework, organization of Fruit Logistica 2006 and Mango Week, as well as the development of a horticulture competitiveness assessment. Through these collaborations, TIPCEE assists FAGE and the NHTF in tightening their strategic focus to becoming sustainable industry fora for addressing cross-cutting issues.

Support for commodity specific associations continues. TIPCEE is supporting the development of the Yilo Krobo and Dangbe West Mango Growers Associations into true Produce Marketing Organizations. The pineapple specific activities are designed and implemented in collaboration with SPEG. GAVEX and VEPEAG members are pilot sites for new vegetable trials. Ghana Agricultural Producers and Traders Organization (GAPTO) is a potential partner when TIPCEE's expansion into food crops is designed and launched.

The EBD component's value chain activities are often centered on capacity building to nucleus firms to assist them in better anchoring extensive outgrower networks of smallholder farmers, championing improved grades and standards, and modeling innovative technologies for wider dissemination to other firms and into the smallholder base of farmers. In Year 2, TIPCEE entered into formal Memoranda of Understanding (MOUs) or contracts with 45 nucleus firms, 20 private sector associations, and 12 business development service (BDS) firms. Additional firms and farmer-based organizations will be added in Year 3.

The EE component includes the private sector in all its activities through public-private dialogue on proposed and pending regulatory issues, and works with individual GOG agencies to integrate private sector input into their policy making process. In addition, TIPCEE works with specific private sector oriented trade associations, such as the Ghanaian Internet Service Providers Association (GISPA), to develop their advocacy skills.

SECTION II. EXPORT BUSINESS DEVELOPMENT

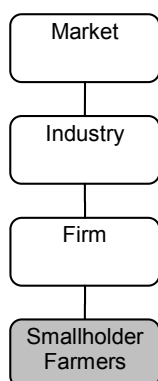
The following sections describe in detail the array of activities to which TIPCEE contributes. They are presented along four thematic lines: 1) smallholder supply base development, 2) support to nucleus firms, 3) industry level services, 4) market intelligence and strategic partnership promotion. Each section covers the achievements to date of ongoing or recently launched activities that have in common the mainstreaming of critical competitive skills and practices to the farmer's level.



A cross-cutting theme in all EBD work is that environmentally-friendly agricultural practices are not just compliance issues – they are good business. EurepGAP and other certifications require that exporters, farms and outgrowers minimize the environmental impact of their production. This market-driven environmental sustainability requires that Ghanaian exporters implement mitigation measures at all levels of their business. In addition to certification requirements, all activities are screened prior to implementation and follow the recommendations outlined in the Initial Environmental Evaluation (IEE) and all pesticide use and training is governed by the Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP).

A. Smallholder Development

The primary objective of smallholder interventions is to ensure that these farmers remain principal actors in Ghana's horticultural industry. To achieve this, special focus is given to structuring smallholder networks and the supporting systems that link them to the downstream supply chain companies both in-country and internationally. To this end, technical support is provided to grower groups to define their production capacity, control their supply base, and achieve improved quality, reliability and value of their product.



A.1 STRENGTHENING SMALLHOLDER FARMER-BASED ORGANIZATIONS

MD2 pineapple producer groups

Traditionally the majority of Ghanaian farmers have cultivated the Smooth Cayenne variety of pineapple, but in recent years the European market preference has shifted to the “super sweet” MD2 variety developed in Latin America. TIPCEE's support for the development of MD2 Pineapple Farmer Based Organizations (FBOs) is a collaboration with HEII's MD2 Pineapple Nursery Multiplication Program (using tissue culture plantlets). The focus is on building smallholder groups into hubs to enable them connect productively with downstream partners including service providers in the pineapple value chain. To this end group mobilization and sensitization for the program covered group cohesion, organizational structure, registration and legalization, and leadership training.

During the year, efforts were directed at strengthening the internal cohesion and management of the various FBOs involved in the program. A combined team of staff from MOFA/HEII and TIPCEE make up a technical group development team (GDT). To date the team has mobilized 91 smallholder pineapple farmer based organizations located in eight districts in Ghana. Out of these, 51 FBOs have advanced and are able to access 44,000 plantlets that have been used for each FBO to develop a one-acre MD2 nursery. Thus far, 2,244,000 plantlets have been distributed to a total of 1,077 farmers.

With project support, 24 groups have become legal entities. The groups have benefited from sensitization programs on MD2 varietal change, group dynamics and development, record-keeping, and good agricultural practices(GAPs). It is expected that these groups will develop as cohesive units with effective channels of communication between members and exporters, improve their business and marketing skills and ensure sustainable GAPs and high-quality fruits.

Upcoming activities will focus on providing technical assistance to the farmer groups to successfully complete their transition to MD2 production as well as their integration into the new supply chain practices required by EurepGAP certification. To this end, TIPCEE will enter into an agreement with MOFA to provide technical assistance at the district level to the farmer groups and the individual growers and will support the scaling up of the EurepGAP Option 2 certification framework which is currently being piloted in collaboration with MOFA, GTZ/MOAP and EurepGAP.

Papaya

A key step towards integration of smallholders in the value chain is the development of nucleus farmer-led outgrower system. Apart from providing ready market access, this approach enhances the transfer of technology and know-how and market information. TIPCEE continued to engage nucleus farms interested in developing their production systems around several smallholder outgrowers. During the reporting period, TIPCEE has developed an intensive irrigated Golden papaya production program with a nucleus farmer-led outgrower model. Under the program, Dansak, which has been exporting papaya to the EU market, is developing a production system with 10 smallholder farmers who were originally producing the Solo variety of papaya. This is expected to increase the export volume of Dansak Farms, diversify the production-related risks and provide direct market access to outgrowers. The 10 farmers have gone through the various stages of sensitization on papaya and the market outlook. Various field assessments including water, soil and GIS for these outgrowers have been established pending the installation of low-pressure drip irrigation systems. TIPCEE is concurrently training another group of 10 farmers near Bimbila to test the viability of papaya development in the Northern Region.

The selected farmers have also received training in papaya nursery development and management as well as production cost analysis and gross margin analysis for commercial papaya production. In the coming reporting period, as marketable produce becomes available, TIPCEE will support farmers to implement and manage contractual agreements with exporters interested in taking up their production.

Vegetables

Ghana's vegetable exports to Europe are essentially smallholder based, reaching an annual volume of 7,000 tons with a market value of over \$5 million. These farmers – more than 3,000 – work with very limited means, organized in a loose network by

exporter/traders dealing with Europe's ethnic wholesale markets. It is a low-value, low-tech sector, where smallholders work with often ill-adapted seed material in order to maintain their low price positioning.

TIPCEE has entered into an agreement with a lead vegetable exporter who aims to go beyond the traditional low-cost bulk marketing approach and develop a network of smallholder groups. The approach is to develop a core group of farmers who successfully adopt GAPs to create a demonstration effect on the more traditional networks. TIPCEE has selected six farmer groups for this pilot. Technical assistance to the participant groups focuses on:

- review of selected outgrowers to evaluate their potential to become production "hubs" to supply a critical mass of an acceptable quality level,
- evaluation of current systems linking smallholders to participating firms,
- provision of technical advice on IPM and GAPs to improve farmer competence leading to the adoption of best agronomic practices,
- training in application of appropriate pesticides use and post-harvest practices,
- development and implementation of an Internal Quality Management System, including a simple control and procedures manual for the achievement of smallholder groups of the EurepGAP certification.

Year 3 will see expansion of smallholder group development activities for food crops such as maize, tomato, onion and citrus.

A.2 DIVERSIFYING THE VARIETY BASE AND IMPROVING PRODUCTION PRACTICES

Pineapple

Building on the vast knowledge base of pineapple production in Ghana, TIPCEE concentrates its support on raising the standards of production, harvest and post-harvest techniques to accommodate the ongoing conversion efforts from the traditionally grown Smooth Cayenne to the new MD2 variety. Training has focused on ensuring that groups acquire the necessary skills to enable them to manage a similar variety change process in the future. Knowledge of site selection for both nursery (sucker multiplication) and production, nursery management husbandry (cultural practices including pest and disease management), sucker multiplication techniques including gouging and EurepGAP documentation are the focus for the training sessions which also build the capacity of the smallholders for future expansion of generating suckers from the multiplication nurseries to establish their individual MD2 farms. In addition, groups have been trained to develop the capacity to engage in contractual agreements with would-be or existing exporters before their MD2 fruits are ready for export.



Specifically, HEI-TIPCEE collaboration has supported the establishment and management of 50 one-acre MD2 smallholder group nurseries (2,200,000 plantlets) in eight districts of the country. Another 30 groups across nine districts have been trained in land preparation and plastic mulch laying and are at various stages in the

development of their nurseries preparing to receive plantlets from HEIL. Eleven group nurseries have reached the stage of gouging or forcing mother plants to produce field suckers. One group in the Awutu-Efutu-Senya district has begun major sucker harvests from their nursery that are transferred to commercial cultivation in the participating farmer's field. On completion of the first cycle of MD2 sucker distribution to smallholder farmers, it is estimated that over 20 million suckers will be available to smallholder farmers.



Mango

Mango has the potential to become an important smallholder export crop over the life of TIPCEE. During this reporting period, the EBD component worked extensively with the mango small farmer base which was created over the past years in the southern part of Ghana by ADRA through USAID's Title II interventions. These include several thousand farmers spread over an orchard area estimated at more than 5000 acres. A major problem identified during the pilot mango sea shipment to Europe in June 2005 was poor quality of fruit due to inappropriate pruning techniques; an inability to control key pathogens such as mango stone weevil, fruit flies and anthracnose; and poor agricultural and post-harvest practices used by most of the farmers. In order to improve quality and ensure successful shipments during the 2006 harvest seasons, a team of three mango consultants provided technical support and practical training in effective spraying, proper pesticide handling, proper pruning techniques and good agricultural practices in mango cultivation to farmers in the four production zones of the Dangbe West, Yilo Krobo, Hohoe and Kintampo districts.

The EBD team produced a basic training manual for on-farm instruction. Monitoring farm activities on a regular basis will ensure that lessons learned were applied correctly. A total of 236 participants, comprised of 212 men and 24 women, attended the initial round of training sessions. A more complete manual on GAPs for mango growers as well as field handbooks on pruning, pests and disease control and harvesting techniques for the trained specialists have been developed and will be released for wide distribution in the coming year.

In addition to the above training programs, a team of 10 specialists each from the Yilo-Krobo and Dangbe West districts were trained in pruning and spraying techniques to provide such services to mango growers in the districts for a fee. This is to ensure that members pursue good agricultural practices on their farms. The Yilo-Krobo Mango Farmers Association (YKMA) has been provided with a "spray car" equipped with a high pressure pump and a large capacity tank to enhance spraying effectiveness and minimize mis-application and use of excess agro-chemicals. Members and non-members will have access to the spray car services (managed by YKMA) on a fee-for-service basis in the coming year.

Papaya

Ghana's once thriving smallholder papaya production for export has been sidestepped by the market in recent years due to the shift in popularity from the Solo cultivar – traditionally shipped by air – to the Golden variety, capable of withstanding sea freight. Only industrial farms made the switch because the new Golden cultivar requires irrigation and cannot withstand the traditional rain-fed cropping practices used by most smallholder farmers. As part of the technology innovation and product

diversification activities, a pilot effort to test the intensive production of Golden papaya by smallholders under low pressure drip irrigation will be launched.

Twenty-three farms have been selected to produce 58 ha of the new Golden papaya cultivar using new and appropriate technologies of which 13 ha is currently established and at various stages of development. Over 150 farmers have been trained. Training is ongoing for the selected farmers in all aspects of nursery establishment and management, irrigation management, IPM training, plantation management and post-harvest handling of papaya. These farms will be monitored by TIPCEE technical assistants on an ongoing basis until they are well into the fruiting stage. Lead farmers are being trained in seed multiplication techniques and a group nursery has been established to raise enough seedlings for the outgrowers who are expected to cultivate one hectare each during the trial. Upon successful completion of the pilot in the last quarter of 2006, 500 smallholders are expected to adopt the technology and produce high-quality Golden papaya.

Vegetables

While there is a growing body of organizations and agencies analyzing the constraints facing smallholder farmer participation in high-value export crops, there is a lack of applied research designed to address these constraints. Carefully designed trials should be conducted in order to properly analyze past and ongoing experiences so as to: (a) draw out lessons about agronomic and commercial viability, (b) better define and document best practices, and (c) develop guiding principles for improving the profitability. Several vegetable varieties are being grown, but two innovative and highly successful introductions are okra and baby corn.

Okra: A first phase of okra commercial diversification tests was implemented on nine sites in the Eastern, Central and Volta Regions. Participants included an independent exporter, one member of VEPEAG, two members of GAVEX and five outgrowers working with GAVEX members. A total of 130 smallholders were involved in the first phase of the trial in the various sites (125 outgrowers already linked to the exporter listed above). Four Indian okra varieties – Najuka and Saloni, developed by Seminis, and OH 016 and OH 152 developed by Syngenta – were planted on a total of 3.2ha of trial plots.

The EBD component developed a manual on the use of IPM in okra production, and used it to train farmers and their workers in good agricultural practices for okra. In addition, as outlined in the PERSUAP, farmers received protective clothing and equipment to ensure safe application of pesticides. Results from the trials indicated that three of the varieties (Najuka, Saloni and OH 152) performed well at all the sites. A total of 6.0MT (1,007 boxes) of okra valued at \$13,652 has been exported to the EU with very satisfactory results, while the remainder was sold on the local market. The success of the trial has generated enthusiasm among smallholders and nucleus exporters, in particular due to the very short fruiting cycle (six weeks) and the high value of the crop.

Based on the success of the first round of the okra trials, TIPCEE scaled up the program in the second cycle of the trial with about 600 smallholders working on 52 farms. The second phase of the okra diversification tests is being implemented in the Eastern, Central, Greater-Accra, Ashanti and Volta Regions. Participating farmers included members of the two vegetables associations, GAVEX and VEPEAG and their outgrowers. A total of 313 kg of three varieties of hybrid okra with disease-resistant strains — Najuka, OH 016 and OH 152 — were planted on a total of 47 ha. Using the Okra IPM Production guidelines produced by TIPCEE, a total of 336

smallholders were trained to date in good agricultural practices for okra, Integrated Pest Management and post-harvest handling. In addition, TIPCEE provided protective clothing and equipment to the farmers as part of the environmental and pesticide management training.

Agronomic technical assistance is provided by a consultant from the University of Ghana Agricultural Research Center (ARC) near Kade to train the farmers on good agricultural practices based on an IPM manual that was jointly developed by the project and the University.

In the next six months TIPCEE will conduct the final trial to address other issues including packaging, storage, traceability, market linkages and logistics requirements for entry into the international market. Upon completion, TIPCEE plans to support 1,200 smallholders to adopt the new crop.

Baby Corn: In the UK, fresh baby corn has transcended its exotic status and is a common item on mainstream supermarket shelves. Due to its perishable nature, a baby corn test was limited to a nucleus farmer who has the basic infrastructure and logistics to deal with the highly sensitive post-harvest handling requirements. An initial trial of the first baby corn was carried out on a two-hectare farm. Results from the trial were very promising and in many cases exceeded yield targets. The produce was sold mainly on the local market through supermarkets, hotels and catering service providers. A local dealer of fresh produce, Eden Tree Limited, has been linked to the producer; a commercial relationship between the two companies will result in more than 50% of the total output being sold through local Eden Tree marketing channels.

A canning test was also carried out with a local canning company to provide an additional marketing channel other than fresh export, targeting the catering industry. Trial shipments have been carried out mainly to the UK market and the feedback from leading buyers supplying the supermarkets indicates a high preference for the exports over current suppliers due to superior

Rev. Sampson Donkoh - Smallholder Farmer



For the past thirty years, 75 year-old Reverend Sampson Seth Donkoh has been farming at Bunso, a village located in the East Akim district of the Eastern Region. He cultivates mainly annual crops such as cassava, yam, plantain and maize for the local market. He formed a 14-member farmer group known as the Obuadum Vegetables Farmers Association three years ago to produce fresh chilies for Kakabo Nana Farms, one of the largest vegetable exporters in Ghana.

Last November, the Association participated in TIPCEE's okra diversification trial as an outgrower for Kakabo Nana Farms. The okra trial introduced the farmers to four okra hybrid seeds with characteristics of high yields, virus and disease resistance, early maturity and prolonged harvest periods. "With okra, you receive money weekly which has contributed significantly in our domestic lives. You will not get it anywhere, not even with chilies and maize," said Rev. Donkoh. In addition to introducing the new seed varieties, TIPCEE also provided technical assistance in the areas of training in good agronomic practices for okra, production of an IPM okra production manual, and provision of appropriate protective clothing and equipment for the trials.

In the initial trial the association cultivated 0.5 acre and generated an income of \$650 from the sale of 176 boxes (1.1MT) of okra within 11 weeks. The success of okra encouraged the farmers to expand from 0.5 acre to 1.0 acre every month and employ six permanent harvesters to ensure timely harvesting and reduce post-harvest losses, a major lesson learned during the trial. "For me, okra is a new source of income and I encourage other farmers to take advantage and improve the unemployment situation in my area" said Rev. Donkoh.

quality, taste and shelf life of the Ghanaian product. As part of efforts to promote the local consumption of baby corn, a recipe card has been developed and will be distributed to restaurants in Accra.

A.3 IMPROVING QUALITY THROUGH TRAINING IN HARVESTING PRACTICES

Griffonia and Voacanga

In Ghana, the domestic market for herbal medicine is estimated at over U.S. \$8 million while exports for medicinal plants was valued at U.S. \$3.5 million in 2004. The industry employs over 10,000 farmers and collectors and involves more than 200 communities in Ghana. Voacanga is one of the leading medicinal plant exports from Ghana. Though exports of these plants began decades ago, nearly all plant materials are wild crafted. The lack of quality control and assurance systems and trade standards governing exporters has led several importing companies to raise concerns about the poor quality of products exported from Ghana.

TIPCEE and Agribusiness in Sustainable Natural African Plant Products (ASNAPP) collaborated with the Ghana Standards Board (GSB) in the development of a draft inspections manual that will be internationally acceptable for voacanga. Standards for voacanga had been developed with the assistance of GSB, however, an accompanying manual and illustrated posters were needed to serve as operational guides for industry stakeholders to ensure conformity. These materials formed the basis for training programs for collectors on proper harvesting and post-harvest handling techniques. In the coming year, the same approach will be applied to griffonia.

Cashew

Improving nut quality is key to raising smallholder incomes and enhancing the competitiveness of the Ghanaian cashew industry. There is an absence of inspections companies in the industry and agents and exporters are frustrated at the lack of clear guidelines to vouch for the quality of raw cashew nuts traded. GSB developed standards for raw cashew nuts and specifications for unshelled, raw and dried cashew nuts in 1998. TIPCEE therefore contracted a consultant from Mozambique, a leading African origin for cashew, to assist Ghanaian industry stakeholders in a review of the standards to reflect current trends and to develop an accompanying inspections manual. A technical committee of GSB approved the inspections manual which will be appropriated by the industry during the next quarter leading to the development of illustrated posters as the basis for disseminating knowledge on the new norms.

Outreach to the extensive smallholder base involved in the cashew nut sector requires coordination with MOFA's Cashew Development Project (CDP), which is to this sector what MOFA/HEII is to horticulture. TIPCEE and CDP formalized an agreement to map cashew farms in seven districts of the Brong Ahafo and Northern Regions using the GIS database approach. This will establish a database to guide interventions in the industry and to provide the basis for a traceability system which will become critical for the industry in coming years (leading suppliers like Brazil are currently developing traceability as part of their core agricultural extension system). Under the agreement, 35 MOFA agricultural extension agents are being trained and equipped with GPS handsets to map a first series of more than 1500 individual cashew farms.

A.4 PILOTING EUREPGAP OPTION 2 CERTIFICATIONS

EurepGAP is a food safety assurance framework which was developed by European supermarkets to evaluate the compliance of their suppliers with good agricultural practices. EurepGAP certification has now become all but a prerequisite in European produce marketing, but remains a major hurdle to the entrance of smallholders into the high-value EU market. Given the size of their holdings, it is impossible for small producers to pay for an individual annual inspection visit by an external certification body as is required in the EurepGAP farm certification. The development of EurepGAP Option 2 certification, where a *farmer group's* conformity with the standard is assessed through the implementation of an Internal Control System by a central association, is one solution.

More Ghanaian smallholders can qualify for this certification. Several activities have supported this process for the pineapple and mango sectors and will be developed for other crops such as papaya and vegetables over the coming project year. EurepGAP requirements mesh with TIPCEE's PERSUAP guidelines that encourage farms to adopt safe pesticide application practices, keep proper pesticide application records and adhere to sustainable cropping practices such as IPM, systematic environmental risk assessments and other sustainable agricultural practices.

Pineapple

Quality management as a cross-cutting issue covers aspects linked to the physical and commercial characteristics of pineapples. The implementation of management systems and production practices which aim to guarantee food safety and ensure consistency and reliability of supply are basic to the competitiveness of smallholders.

TIPCEE has been collaborating with MOFA/HEII to support smallholders in the MD2 pineapple program with quality management training focused on gradually bringing these FBOs to the level where they can achieve certification under EurepGAP Option2. Training has also been provided for good and appropriate agronomic practices for the production of quality MD2 pineapples.



Nigel Garbutt, Chairman of EurepGAP, discussing Ghana's export potential with Stephen Mintah, General Manager of SPEG, and Samuel Mintah, General Manager of Prudent Farms.

Six groups have been selected to pilot the EurepGAP Option 2 for smallholders in pineapple production. Documentation for registration as legal entities has been submitted to the registering bodies and all selected groups will possess certificates by the end of project Year 3. Together with GTZ/MOAP and HEII, TIPCEE is working with the selected smallholder groups to set up Quality Management Systems towards the implementation of an Internal Control System (ICS) of good agricultural practices. Training of farmer groups has built their knowledge of plantlet multiplication and proper documentation practices in preparation for the EurepGAP Option 2 pilot program.

This program was launched in May 2006 by the Minister of Food and Agriculture. The EurepGAP Chairman, Mr. Nigel Garbutt, traveled to Ghana specifically to attend the event and demonstrate EurepGAP's support for this innovative program. He delivered the keynote address on current trends in private sector-led food safety certification and visited several farms.

Mango

During the Fruit Logistica Fair in Germany last February, it became evident to the President of the Yilo Krobo Mango Growers Association that European mango importers were only ready to buy fruit from EurepGAP-certified Ghanaian exporters. In order to provide EU market access to producers, TIPCEE will support the two main associations in Southern Ghana (Yilo Krobo and Dangbe West) to achieve EurepGAP certification under Option 2. This requires interventions aimed at supporting smallholder producer groups to set up internal control systems in preparation for management systems that comply with EurepGAP control points.

An initial group of 25 members (12 from Dangbe West and 13 from the Yilo-Krobo Districts) signed up to participate in the program for Option 2 certification. A readiness assessment of the 25 farms has been completed. During this reporting period, a series of training programs focused on recordkeeping, safe pesticide usage, and calibration of spraying equipment. In addition a draft mango production manual has been prepared which will support establishment of a quality management system. It is expected that a pre-audit for certification will be carried out in November 2006 after which corrective measures will be implemented and, if successful, will lead to full certification in 2007.

District agricultural extension staff will act as quality assurance managers for the participating members to help them reach pre-audit status before the major harvest season. This will strengthen the capacity of the district directorates to support mango farmers and other agricultural producers in future EurepGAP certification programs.

Vegetables

EurepGAP certification presents a major constraint for smallholders to access higher value markets and this is especially true for the vegetable industry's smallholder production base. In order to provide access to these small producers, TIPCEE is collaborating with a lead vegetable exporter, Equatorial Capital Ventures (ECV) and six smallholder farmer groups to develop a smallholder certification program based on the EurepGAP Option 2 schemes, which can later be mainstreamed to the industry as a whole. TIPCEE has contracted a consultant experienced in the successful Kenyan model to work with ECV and the farmer groups to define the approach for the development of the outgrower management systems that would lead to EurepGAP accreditation.

A.5 CONDUCTING TECHNOLOGY PILOTS

Introducing new seed varieties

In response to low productivity associated with lack of good and reliable planting material, TIPCEE has conducted a series of trials with seeds identified to have desirable traits of both yield and disease control. These include hybrid okra, golden Caliman papaya and baby corn seeds. During this reporting period, TIPCEE

conducted field trials with these varieties and disseminated results to industry actors. The results obtained during the trials showed very high export market values for these varieties. Plans are underway to upscale the program to cover 700+ smallholders in the second phase.

In the coming year, TIPCEE will test new varieties of disease-resistant, high-yielding food crops through a similar approach.

Improving pesticide application methods

Pest control using pesticides has implications not only for the environment but also for food safety and worker health. In this regard TIPCEE has supported producers to develop the capacity and relevant skills to ensure that proper pesticide application methods are used in all spraying activities. During the reporting period the following training modules were delivered to over 500 smallholder farmers, especially in the vegetables sector: (a) understanding the meaning, type, mode of action, formulation, toxicity and consequences of misuse of pesticide; (b) types of pest management equipment and their various functions; (c) selection of proper application equipment for a specific job; (d) equipment maintenance to ensure safe, economic and efficient use of each piece of equipment; (e) safe and efficient use of agricultural and public health pesticides; and (f) guidance for safe storage of pesticides and proper disposal of pesticide waste containers. In order to reinforce these objectives, TIPCEE regularly supplies personal protective equipment to small farmer groups participating in production trials.



Expanding drip irrigation pilots

For smallholder agriculture to become and remain competitive there must be a transformation from rain-fed agriculture to irrigated agriculture for selected crops. The use of more precise irrigation techniques will guarantee year-round production, improved produce quality and yield, consistency to market volumes and attainment of critical masses for export quantity requirements. Lack of know-how and inefficient technology are major impediments to smallholders' productivity. Innovative approaches for reversing this trend are underway to test various technologies and support smallholders to adopt them. To this end, TIPCEE has developed a comprehensive program for nationwide smallholder production based on low-tech irrigation technologies for effective water management with sites in southern Ghana, Brong Ahafo, Northern and Upper East Regions.

During the reporting period, the EBD team carried out extensive reconnaissance involving established farmer groups, nucleus farms, research institutions and universities to develop the necessary linkages upon which these pilots will be conducted. Feasibility studies have been conducted for the introduction of overhead tanks with low-pressure drip irrigation systems for selected vegetable smallholders. In addition, field visits to selected farms enabled the EBD team to complete assessments on the suitability of various sites.

Southern Ghana: Technical studies have also been completed for the installation of 7 ha high-pressure drip irrigation on Golden papaya at Dansak Farms, 1 x 10 ha low-pressure drip irrigation system on Golden papaya for selected outgrowers of Dansak Farms, 1 x 5 ha low-pressure drip irrigation for vegetables at Natriku Farmers Group

farms and 1 ha low-pressure drip irrigation on vegetables for Param Farms, all in the southern horticultural belt.

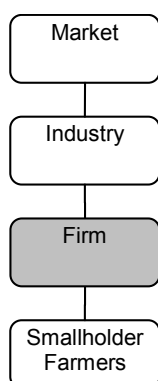
Northern program: A collaboration with the Savannah Agriculture Research Institute (SARI), Irrigation Development Authority (IDA) and the Bawku Municipal Directorate of MOFA will establish an extensive network of irrigation pilots (14 sites) supporting smallholder vegetable production. The pilots will use existing major dam sites in the Upper East and Northern Regions and eventually reach more than 10,000 vegetable farmers. In addition to enhancing productivity, the sites will serve as a base for export crops such as melons, okra and French beans, as well as commercial crops with more regional interest such as tomatoes and onions. In the course of project preparation and sensitization, 110 farmers, 3 IDA officers from the Bontanga irrigation dam and 10 MOFA AEAs from Bawku visited the Golinkga or Tono irrigation dam sites to familiarize themselves with the drip irrigation technology installed by International Crops Research for the Semi-Arid Tropics (ICRISAT) in collaboration with SARI under USAID/WA funding (Africa Market Garden concept).

Trial stations: In order to provide an institutional anchor to the various diversification and technology trials, TIPCEE concluded an agreement with the Agricultural Research Centre of the University of Ghana located at Okumaning near Kade in the Eastern Region. This will lead to the establishment of a small-scale (3 ha) trial station which will also serve as a field school, enabling students, crop extension agents and farmers enrolled in the institution's many programs to have access to the innovations being promoted by the EBD component in matters of export/commercial diversification crops and precision irrigation techniques. A similar facility, with the same objectives, has been discussed for the Northern Region which would be run by SARI at the Golinkga irrigation dam.

During the reporting period, EBD staff conducted a preliminary study at the site in Kade to develop a framework to establish the station. A field assessment revealed that in order to ensure a sufficient and reliable supply of water to the trial station the center's irrigation dam must be repaired. Irrigation consultants were engaged to perform a thorough feasibility study and environmental assessment of the dam and advise on how this could be turned into a functional facility to support the field school. The report will form the basis for further engagement with other stakeholders to attract the necessary investment for the rehabilitation works. When completed, the site will serve as field school to train students of agriculture and farmers in the various production techniques adapted to smallholder agriculture

B. Nucleus Firms Support

Lead firms, operating in the targeted commodities, received various forms of business development services, including improvement in financial management and control systems, supply chain sourcing, corporate governance, and quality assurance systems involving outgrowers.



The criteria for the selection of participating firms for direct support hinge on the potential to address sector-specific challenges in developing “nucleus” activities – strong linkages between a partner firm and satellite outgrowers and smallholder farms – and is integral to strengthening the supply chain in general. EBD staff evaluated the areas which hinder the firm's performance as a supply chain member. These primarily focus on: (a) accuracy of the forecasting and planning tools used in evaluating supply, (b) efficiency of the

logistics systems used to pool production from small farms and outgrowers, and (c) timeliness and responsiveness of the cash flow management system, as well as the associated policies and practices, to ensure prompt payment to smallholder farmers.

Each intervention at the firm level is designed to be a model (or template) for other sector-specific companies. These models have to be tailored to the subsector as the planning, logistics, investment and working capital profiles vary greatly from crop to crop. For example, vegetables have a 3- to 6-month turnaround as highly perishable goods, papaya has a 3-year production cycle involving weekly harvests, pineapple requires a 14-month program leading to a single harvest, and mango is a tree crop with annual harvests. These adapted planning, logistics and financial management systems will then be transferred to other firms through training workshops and technical documentation. The result will be a set of best practices, contractual frameworks and management systems which will strengthen the linkage between small farmers and nucleus organizations.

Partnerships with 11 companies are currently underway:

Athena Foods	Farmapine
Bomarts	Greenspan Farms Ltd.
Cashnut Foods	Janak Farm
Dansak Farms	John Lawrence Farms
Demehsco Farms	Pentacom
Equatorial Capital Ventures	Tayco Agro

B.1 DEVELOPING LINKAGES TO SMALLHOLDER FARMERS

Linking small farms to the processing industry

A major challenge faced by fruit processing firms is the sourcing of the right quality, quantity and consistency of fruits at right prices from suppliers. Key processors such as Athena Foods Limited, Coastal Grove Limited and Pinora Limited, all firms with established processing capacity, depend on smallholder pineapple and orange producers who are widely dispersed in four regions for raw materials.

Industrial citrus: Ghana has an extensive production base in citrus, the result of various initiatives including USAID-supported food security programs. Today, industrial firms are interested in tapping this production base and developing its export potential as single strength juice and/or frozen concentrates. However the dispersion and lack of clear data — to ensure accurate production planning, coordination of logistics, and general management of the productivity of the combined orchard base — proves to be a major constraint to competitiveness and long-term success of these industrial investments.

To address these concerns, TIPCEE is collaborating with partners including the MOFA and GTZ/MOAP, and working together with identified producer groups to establish a detailed database, including field maps, covering the Central and Eastern Regions. This will enable the identification of fruit sources and planning raw materials supply. Currently, the institutional coordinator for this work is the Citrus Value Chain Committee established by MOAP and MOFA in the Central Region. In September 2006, a pre-test involving the initial surveying and mapping of 16 citrus farms using GIS technology and a preliminary questionnaire, began in the Central and Eastern

Regions to establish benchmarks for a larger mapping exercise scheduled to commence in November 2006.

Pineapple for processing: Firms are also currently facing shortages of pineapple supplies due to the transition of most farms from the traditional Smooth Cayenne variety to the market-preferred MD2. Due to low prices currently offered for the Smooth Cayenne and the expensive transition to the new variety, smallholders are shifting to food crop production, thereby reducing their incomes. However, processing firms which previously were supplied with export rejects can become primary markets for Smooth Cayenne production and revive the smallholder production base.

TIPCEE developed a concept paper, *Growing Smooth Cayenne for Processing in Ghana*, to establish the basis for cultivating the variety solely for processing at a reasonable profit to farmers. The report concludes that farmers can increase their fruit sizes to an average of 1.8 kg per fruit from the export specifications of 1.5 kg; plant 18,000 suckers on an acre plot; reduce cost of production and sell at ø600 per kg (\$0.065 per kg) to processing firms at gross profits of 23% before interest charges.

TIPCEE will now work with the key processing firms to identify about 20 pineapple farms to pilot the concept and expand production of the Smooth Cayenne for the benefit of the smallholders and firms.

B.2 CREATING IMPROVED MANAGEMENT MODELS FOR NUCLEUS FIRMS

Nucleus entities (or “anchor firms”) provide the cutting edge to successful operations of supply chains through provision of strong management and technical capacity and marketing influence. However, many firms have to surmount challenges to their operational effectiveness which are sometimes outside their capacity to resolve.

John Nkansah - Owner, Dansak Farms



John Nkansah owns and manages Dansak Farms, a farm that produces pineapple, papaya, passion fruit, mango and vegetables, with papaya being the major crop. During the past year, TIPCEE and Dansak collaborated on a papaya sea shipment to see if Dansak's harvesting, handling, packing and logistics would meet the high quality demands of the European market.

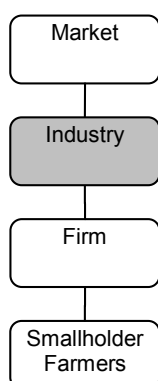
While the trial shipment did produce favorable results, it also highlighted some required improvements in production techniques and post-harvest handling. First, Mr. Nkansah had to address quality issues, so TIPCEE sourced high quality Golden seeds from Caliman, the leading papaya exporter in Brazil, to establish an improved variety papaya nursery. Specialized training manuals were developed to ensure the highest quality fruit. Second, Dansak had to increase his area under cultivation to consistently supply the market. TIPCEE assisted Dansak to recruit and organize 10 outgrowers to plant one hectare each of the new seedling. These outgrowers were trained in new production processes for the Golden variety, along with irrigation and post-harvest requirements. Plans are underway to have them EurepGAP certified.

Mr. Nkansah's collaboration with TIPCEE has benefited his business through improvements in production, introduction of new technologies and increasing production capacity through the incorporation of outgrowers. Mr. Nkansah sums it up by saying, “TIPCEE is a more practical project than the past projects I have worked with. With your help we hope to be the papaya king of Ghana in the coming years!”

Deficiencies in their internal financial management systems create barriers to investment and hinder the growth of firms. By developing appropriate models that can be replicated across commodities, TIPCEE expects to establish templates to enable effective diagnosis of financial problems and prescribe tailored investment solutions to ensure profitability.

C. Industry Level Activities

On a broader level, the EBD component has carried out a series of activities which will impact the horticultural industry as a whole. In the current reporting period, these have targeted the quality assurance framework as well as systems which will impact the industry's logistics practices.



C.1 ADOPTING QUALITY NORMS AND STANDARDS

Development of illustrated norms

Perhaps the most significant impediments to the growth of Ghana's horticulture exports are quality and consistency issues. During the reporting period, TIPCEE collaborated with GSB and industry stakeholders to adapt and adopt standards and inspections manuals for pineapple, mango, papaya and chilies. The goal is to implement testing procedures at packhouse and export departure points to ensure conformity to customer expectations. Eight workshops were organized to solicit buy-in by industry stakeholders. Approximately 100 participants attended these sessions at which product norms for each product were adapted to increase conformity levels with actual market expectations and practices.

During the workshops, stakeholders agreed to develop illustrated norms or photographic depictions of key quality issues to give farmers, exporters and their personnel a better understanding of requirements. Collaboration with major pineapple and papaya producers and exporters led to development of illustrated norms from appropriation workshops held to elicit industry buy-in to the product standards. Subsequently a technical consultant and a graphic designer developed the illustrated norms for three varieties of pineapple, Smooth Cayenne, MD2 and Queen Victoria, and two varieties of papaya, the Solo and Golden cultivars.

The positive reaction of both GSB and the private sector to this approach has set the stage for developing similar quality conformity initiatives for a number of other commodities including papaya, cashew, tomato and medicinal plants. Two consultants were contracted to work with the cashew industry to develop preliminary standards and inspections manuals which can be appropriated by stakeholders at an industry forum in November 2006. Furthermore, collaboration with the Agribusiness in Sustainable Natural African Plant Products (ASNAPP) and GSB has led to development of a draft inspections manual for Voacanga, one of two major natural products, from existing standards

Norms Adoption Process

Step 1: GSB forms working group to draft standards from current practice.

Step 2: Technical subcommittee review it and technical committee deliberates.

Step 3: Proposed standards receive public comments.

Step 4: GSB modifies draft to reflect comments.

Step 5: Technical committee reviews and approves norm.

Step 6: Norm becomes official and is gazetted.

developed by GSB. The inspections manual for Griffonia will be developed in the coming year. The manuals form the basis for illustrated posters which serve as operational guides for collectors and traders to conform to quality norms necessary for increasing the volume and value of exports.

See Annex G for examples of illustrated norms posters.

Pineapple pilot inspection program

In the fresh produce sector, the coming of age of an export industry is marked by the establishment and enforcement of a set of industry accepted standards which contribute to the global branding of the origin, guaranteeing that customer expectation will be met consistently. With the upcoming implementation of an inspection program based on clear product quality norms, Ghana is joining the ranks of such origins. The central component of the road map to full industry compliance with quality standards is a year-long pilot inspections program targeting the pineapple industry. In November 2005, the EBD component conducted a mapping and assessment exercise at 17 packhouses to identify locations and establish their readiness for the program. All the packhouses provided relevant data on their facilities, work force, operations, export figures, lab equipment, and contact people.

The pilot pineapple inspections program is set to commence in early November 2006 with the signing of a nine-month contract with BIVAC, an international inspections company to undertake tests on produce from 10 selected SPEG members at their packhouses and at the Tema Port. The tests are the crux of ensuring compliance with the pineapple norms and inspections program. To ensure sustainability and full adoption by the industry, SPEG has signed a two-year contract with BIVAC to continue the program after the TIPCEE-sponsored pilot phase. An agreement has been signed with GSB to supervise the inspections program.

About 250 illustrated posters of MD2, Smooth Cayenne and Queen Victoria have been printed for distribution to guide conformity by participants in the program. About 4,000 copies of the posters will be printed for farmers and exporters to assist in improving quality conformity levels. All relevant data from the inspections program will be documented and analyzed by SPEG and shared with stakeholders on monthly basis during the pilot phase.

Stephen Mintah – Industry Leader



Mr. Stephen Mintah has been the General Manager of the Sea-Freight Pineapple Exporters of Ghana (SPEG) over the past eight years. The former banker worked for the Agricultural Development Bank for 20 years before joining SPEG. As head of SPEG's management team overseeing logistics, technical, administration and marketing functions, he liaises with relevant agencies and service providers to ensure cost-effective services to members. He also leads discussions with Government on policies relating to the pineapple industry and joins the Executive Council to negotiate for freight services and charges.

His vision for SPEG is to ensure support for the industry and to double current production within the next four years. He wishes to see the industry adopting a group marketing system to become the preferred choice for pineapple sourcing. Mr. Mintah sees high growth potential in the industry, which, however, needs massive capital injection. To him, a system to ensure good quality fruit production is critical. "We have been trying to get this norms assessment program off the ground since SPEG's early days in the 1990s. We can almost call it a historic moment in the industry's evolution. It will be critical in our project of developing a common brand."

He finds current interest shown in group marketing by exporters very promising. "TIPCEE's participatory approach in collaborating with clients and their current programs with the Association are very useful," Mr. Mintah added.

C.2 PROMOTING GHANAGAP AND EUREPGAP

The design of a Ghana Good Agricultural Practices normative framework that will be capable of achieving equivalency status with EurepGAP in the future has been contemplated and pursued in a variety of forums. With GOG, GTZ, FAGE and the National Horticulture Task Force, TIPCEE supported the consolidation of these efforts. Such an exercise will supply the industry with an internationally recognized standard of performance and greatly improve farmer and enterprise compliance with industry norms. A presentation of the current situation in Ghana related to EurepGAP compliance, as well as ongoing initiatives promoted by TIPCEE and other partners, was presented by the EBD director in collaboration with the Chairman of the Ghana National Horticulture Task Force (NHTF) at the sixth EurepGAP conference in October 2005.

This presentation enabled the audience of producers and buyers to compare Ghana's strategy with industry leaders such as Mexico, Brazil, Chile and China. It also provided strategic information on coming trends, such as the growing importance of GIS-based and barcode supported traceability systems in supply chain logistics, both technologies integral to the TIPCEE program. The presentation captured sufficient interest from attendees to prompt the United Nations Conference on Trade and Development (UNCTAD) to engage FAGE to produce a paper on the Ghana EurepGAP experience, which will be part of a series of case studies from Kenya, Brazil and Argentina to be presented at an international workshop later this year.

The seventh EurepGAP conference was held in September 2006, in Prague. It was followed by a training session on the new EurepGAP-sponsored UAID/traceability facility. Ghana's representatives to the event included Emmanuel Owusu (SPEG), Eric Bentsil Quaye (MOFA/HEII), Rowland Aggor (GEPC), Kofi Biney (GTZ/MOAP), Reuben Coffie (USAID/TIPCEE) and Jean-Michel Voisard (USAID/TIPCEE). Attendance to the event was co-funded by TIPCEE and GTZ/MOAP. The Ghanaian delegation was able to participate in all the relevant thematic groups and contributed its concerns related to the implementation of the new revision in EurepGAP guidelines, especially as they apply to smallholder farmers. The Ghana EurepGAP pilot, presented by Mr. Owusu and Mr. Quaye, was described in an article included in the EurepGAP newsletter which was distributed during the conference. The Ghanaian approach, which focuses on developing systems to integrate decentralized crop extension and exporter staff in the training and management of the farmer organizations, was recognized as pragmatic. Several participating countries indicated their interest in following the progress of the recently launched Ghanaian program.

C.3 IMPROVING TRACEABILITY

The implementation of the barcode pallet tracking and tracing system to monitor produce shipments from Ghanaian ports to destination points commenced with a training workshop organized in collaboration with SPEG. The 34 participants from the horticultural industry, government agencies and IT firms came together in July 2006.

Barcoding experts from Total Control, a UK-based company, conducted the training during which they visited Shed 9 at the Tema port to assess the possible implementation of the pallet tracking and tracing program. Bidding documents have been prepared for the supply of hardware and software necessary to establish the

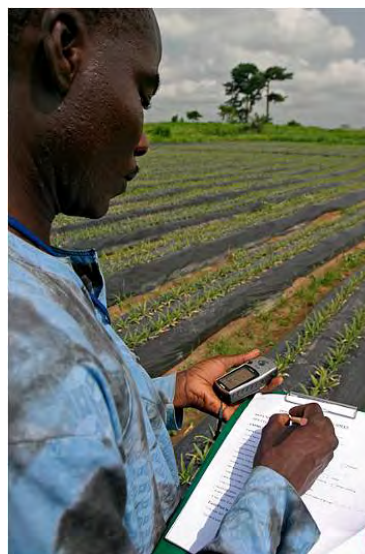
barcoding platform for SPEG members. The implementation of the program is expected to start after the launch of the pineapple norms and inspections program.

Discussions have also been held with the Plant Protection and Regulatory Services Directorate (PPRSD) and the Ghana Association of Vegetable Exporters (GAVEX) to improve exports of vegetables through post-harvest management techniques and proper documentation from farms, packhouses and exit ports to speed up certification and improve tracing and tracking of exported vegetables.

C.4 UTILIZING GEOGRAPHIC INFORMATION SYSTEMS (GIS)

Promoting the use of Global Positioning Systems (GPS) and associated GIS technology to better integrate smallholder farmers into modern supply chain systems is a key EBD intervention. GIS enables geo-referencing of features on earth and relates data to geographical location. Through GIS mapping, smallholder farms become fully traceable using a unique address system generated through geographic reference of the entire farm as well as individual plots within the farm. This traceability makes farmers more visible and attractive to potential exporters, enhancing their linkages to downstream markets. Training in the importance of GIS, use of GPS units, and data collection and analysis is integrated into all commodity sectors.

TIPCEE's Geographic Information Systems (GIS) equipment became operational during the reporting period and in collaboration with a number of firms, associations and public institutions, it was used to develop spatial information on a number of commodities including pineapple, mango, papaya, cashew and vegetables.



Lead pineapple firms adopt GIS technology

TIPCEE provided training to 10 Farmapine workers in the use of GPS to establish the actual production sizes of MD2 and other pineapple varieties for 66 farms of cooperative members. Farmapine used the maps generated from the exercise to apply for a loan to ensure the supply of MD2 plantlets to the cooperative farms. It intends to use the maps and associated data to set up production monitoring, costing, traceability and product forecasting systems.

Also, GIS was employed in mapping the fields of another major pineapple production firm. About 15 workers received training and were assisted to map about 500 ha of the pineapple farm at the plot level. TIPCEE is currently supporting the firm to establish its own GIS platform and to design a database as a benchmark for other operations.

For another firm, GIS mapping was used to accurately measure the total land area leased from land owners, enabling the company to re-negotiate and obtain an extra 100 acres which was the difference between what was purported to be the size of land sold and the size established using GIS.

A tool to promote investment in banana

Chiquita procures and exports horticultural produce to the European market from worldwide origins. The company currently plans to establish a banana estate in Ghana and to source for other export commodities. TIPCEE worked closely with Chiquita's technical staff to provide them with all relevant information to make investment decisions including GIS-based soil maps, topographical and transport data from potential sites selected for the production.

Mapping industry associations

Upon requests from the main industry associations, Sea-Freight Pineapple Exporters of Ghana (SPEG), Ghana Association of Vegetable Exporters (GAVEX), Horticulture Association of Ghana (HAG) and Vegetable Producers and Exporters Association of Ghana (VEPEAG), the EBD team provided technical assistance in mapping and processing of farm maps for members. The survey and field data collection was carried out with the support of MOFA agricultural extension agents in the targeted districts. In the GIS mapping, unique codes were given to each farm, and additional attribute information — such as crop-specific production, agronomic practices, and plot and farm history — was collected.

Mapping the smallholder supply base: mango, cashew and citrus

Over 500 smallholder mango and vegetable farms in the Akwapim South, Dangbe West, Yilo Krobo and Afutu-Ewutu-Senya districts were mapped. The data collected from these farms were processed and uploaded into the database. In addition, the corresponding geographical maps have been generated for all smallholder farms covered in the mapping exercise.

TIPCEE began collaboration with the Cashew Development Project (CDP) of MOFA to map cashew farms in key production areas of the Brong Ahafo and Northern Regions using GIS to establish a national database on current production to guide interventions. Training in GIS applications and the use of GPS was provided to over 40 MOFA extension agents and Management Information Systems persons in seven districts selected for the exercise. A total of 21 GPS handsets, four sets of GPS downloading software, and a laptop equipped with ArcView GIS were supplied to the CDP and participating districts to facilitate mapping, data collection and analysis. It is expected that farm data will be submitted on a monthly basis to TIPCEE to enable the development of the cashew database and generation of field maps for use by CDP. Full transfer of the database to MOFA will commence in Year 3.

An initiative to map and survey the citrus orchards of the Central and Eastern Regions has also been launched in collaboration with the Citrus Value Chain Committee. Details are described in the nucleus firms section on page 29.

Establishing standards and guidelines

GIS Standards: TIPCEE's perspective in the development of GIS in Ghana is to encourage the building of strong capacity in commodity industries, associations, and the supporting GOG agencies to document, manage and monitor the various production systems. TIPCEE initiated discussions with the Centre for Remote Sensing and Geographic Information System (CERSGIS) of the University of Ghana, Legon, HEII/MOFA, EPA and SAKSS/GSSP of IFPRI to coordinate and develop a set of industry standards to ensure compatibility in GIS platforms and quality of ensuing databases.

The aim is to provide guidelines and to build the capacity of staff, industry stakeholders and beneficiaries in the application of GIS for each selected commodity. Issues to be addressed will be defined by the users and will cover the following: standard compatible farmer codes and descriptive tables, crop specific information profiles, associated climate and soil data, linkage to traceability software, pest and pathology scouting information formats, and selected information transfer platforms to a central MOFA database.

C.5 EXPANDING ACCESS TO POST-HARVEST INFRASTRUCTURE

Mango bulking points

The quality of fresh fruits and vegetables is greatly enhanced by packing under ambient conditions and protected from the vagaries of the weather. However, within the southern mango production zones in the Yilo Krobo and Dangbe West districts, packhouse facilities are nonexistent. The need to establish produce bulking facilities or packhouses at central locations where farmers can bring their produce for effective sorting and packing for distribution to the different market channels is increasingly becoming important.

TIPCEE is assisting the mango associations in the two districts to establish these facilities by developing modular designs for post-harvest handling. An architectural design firm was contracted in August 2006 to develop designs for three facilities – fruit bulking point, mango packing line, and cold storage facility – with input from industry participants. TIPCEE and other stakeholders are reviewing the designs from the firm and work on construction of the bulking point will commence once the review and contracting issues are completed. The design allows for phased construction based on the needs of the association and its access to financing.

TIPCEE proposes to support the Phase I construction of two bulking platforms – at Somanya and Dodowa for the Yilo Krobo Mango Farmers Association and Dangbe West Mango Farmers Association. The associations have secured titles to the proposed plots of land for the construction of the bulking facilities. Further enhancements and expansions will be carried out by the associations.

Tema fruit terminal

HEII/MOFA is leading the effort to renovate Tema's Shed 9 facility to provide cold storage and modern fruit export handling capacity. TIPCEE provided support to the development of a legal framework for the management of Shed 9 through a public-private partnership as an option for HEII. A law firm specialized in privatization issues under Ghanaian law was commissioned to work with SPEG and concerned stakeholders to (a) establish the relevant legal and regulatory elements to be addressed by such a concession agreement; (b) conduct a training/discussion workshop with SPEG to inform members on the specifics of concession agreements, notably in terms of procurement and attribution procedures, and define the expectations of the industry; (c) subsequently conduct a stakeholder workshop



leading to (d) the establishment of terms of reference stating the specific points to be negotiated with GOG in drafting the definitive concession agreement. SPEG now has a clear understanding of the issues at hand.

John Lawrence post-harvest service center

Suitable production and post-harvest infrastructure are basic to the competitiveness of businesses. During the reporting period, TIPCEE provided support to John Lawrence Farms Ltd by refurbishing the company's packhouse to enable provision of pre-cooling services to producers and exporters of fruits and vegetables within the Akwapim South and Ga district production areas.

An evaluation of the packhouse indicated that the facility required upgrading to bring it to food industry standard to properly serve as a service centre for the pre-cooling of about 9,000 MT of fresh produce annually. JLF's contribution was the provision of the service at a promotional rate to be agreed upon with industry participants willing to use the pre-cooling and cold store consolidation platform on a pilot basis over an 18-month period.

The upgrading was completed in September 2006 and key improvements to the facility included the refurbishment of floors with non-corrosive epoxy coating, rehabilitation of electrical fittings, repair of refrigeration units and pre-cooler. TIPCEE is currently working with John Lawrence Farms to develop the inventory and cold store management services and training of personnel in third-party delivery.

C.6 ENHANCING CLUSTER GOVERNANCE

Exporting horticulture products involves much more than production and shipping as detailed by the lists of ancillary services in the supply chain diagram in Annex A. The "cluster" of industry players extends to university research centers, trade associations, GOG support services, financial institutions, and development partners.

World Bank Institute competitiveness capacity building

The six month-long Strategic Development of Horticulture Value Chains program initiated in 2005 was the result of collaboration between the World Bank Institute, IFPRI and TIPCEE. The program, which included video conference participants from Ghana, Uganda, Ethiopia, Mali, Senegal and Burkina Faso, was designed to strengthen each participating country's development agenda, and support the implementation of the World Bank's Agricultural and Rural Development Strategy in sub-Saharan Africa.

By presenting several technical modules, contributing to the design of the program, and serving as co-coordinator for the course, TIPCEE received high ratings from participating countries and the World Bank. The program included interactive presentations by participating countries on topics such as the supply-chain approach; competitive advantage and industry benchmarking; logistics and transactional management; quality management, grades and standards; innovation processes; and investment and partnering.

As part of the strategic next steps, design and implementation of an in-country program with the World Bank is underway, with the goal of building institutional capacity within Ghana to deliver this training program in universities. The World Bank

and a number of Ghanaian teaching institutions are interested, including University of Ghana – Legon and the Ghana Institute of Management and Public Administration.

Using USAID's PIVA tool

Diagnostic reviews were carried out on four product associations: SPEG, GAVEX, Yilo-Krobo Mango Farmers Association, and Mango Farmers Association of Dangbe- West using USAID's Partner Institutional Viability Assessment (PIVA) scale as a tool for analysis. Results indicate that all four associations are at the "developing" stage. Many commodity associations lack functioning secretariats or qualified personnel to staff their offices. With the exception of SPEG, the lack of these basic facilities has affected recordkeeping and information management.

Building capacity of mango associations

EBD staff assisted mango farmers in the Yilo Krobo and Dangbe West districts to form their associations, including preparation of governing constitutions and election of executives. Efforts are underway to increase membership and to improve output from the industry. Technical training programs were organized for three mango associations — the Yilo-Krobo Mango Farmers Association, Mango Farmers Association of Dangbe West and the Kintampo Mango Farmers Association — in nursery management; estate development and management practices; harvesting and post-harvest management practices; and plant protection, pests and disease management.

TIPCEE assisted these mango associations in developing strategy documents and business plans to enable loan and grant applications to the Export Development and Investment Fund (EDIF) for the purchase of farm equipment. The application from the Dangbe West Mango Farmers Association was approved for supply of farm equipment including two tractors and a five-ton trailer, a boom spraying machine, six motorized mist blowers, five mini-chain saws and ten pole pruners valued at \$96,000. The application from the Yilo Krobo Mango Farmers Association has not yet been approved.

Using USAID's PIVA scale, diagnostic

J.K Odzeyem - Industry Leader



Joseph Odzeyem, Chairman of the Yilo Krobo Mango Farmers Association, had a field full of mangoes, but not of high enough quality to export. Through TIPCEE's mango program, Mr. Odzeyem and the other mango farmers of Somanya received on-site technical support and practical training in effective spraying, proper pruning techniques and good agricultural practices in mango cultivation. In less than six months, the improvements to Mr. Odzeyem's farm resulted in a successful shipment of mangoes to the European market. According to Mr. Odzeyem, "Lessons learned from the training have helped to control pests and diseases on my farm and this has improved yield and quality of produce."

Mr. Odzeyem also attended the Fruit Logistica trade fair in Berlin, Germany, where he made contact with exporters from Europe and learned about the latest trends in the market. All major importers stressed the importance of EurepGAP certification, and — with TIPCEE assistance — his association will become EurepGAP certified under Option 2 by the end of May 2007. With improved agricultural practices and EurepGAP certification, Mr. Odzeyem and his fellow association members will be able to export mangoes at a higher price to selective European markets.

"TIPCEE has been a great support not only to me but to all the mango farmers in the district. I hope that this collaboration and assistance will continue."

reviews were done for two other associations in the Brong Ahafo and Northern Regions: the Kintampo Mango Farmers Association and the Organic Mango Outgrowers Association, outgrowers of Integrated Tamale Fruit Company (ITFC). The review indicated that the two associations were at “developing” stages. TIPCEE is therefore working to develop a strategy to improve their organizational capacity.

GAVEX

Collaboration with the Ghana Association of Vegetable Exporters (GAVEX) continued to improve the production and export activities of its members. Major activities included the sourcing of three varieties of okra hybrid seeds from suppliers in India. These were used to conduct a round of okra trials with over 600 outgrowers and smallholders linked to the association. The trials are described on page 23.

A series of good agricultural practice training programs were organized for the vegetable farmers in collaboration with the PPRSD to reduce pest infestation on their farms and a working group set up to develop stringent quality regulations for vegetable exporters and to ensure compliance. Discussions are ongoing for TIPCEE, GAVEX and PPRSD to work closely to tackle the pest problems which are hindering vegetable exports to the EU market. TIPCEE also facilitated discussions to establish an efficient administrative structure to strengthen the managerial capabilities of the association’s executives. Another priority in the coming months will be the preparation of a strategic development plan for the association, using USAID’s PIVA scale as a tool for analysis.

C.7 CONDUCTING TRIAL SHIPMENTS

Mango

To ensure the success of the 2006 minor mango harvest season, the Ivorian specialist team that established benchmarks for harvest and post-harvest management for mango exports in 2005 was contracted again to conduct pre-harvest assessments of mango farms in the main production areas of the Dangbe West and Yilo Krobo districts. The experts also trained mango farm workers in appropriate harvesting and packing techniques. Two export firms, Mission Farms and Opinti Farms, purchased a total of 40 MT of fresh mangoes from members of the Yilo Krobo Mango Farmers Association for export to Germany and Lebanon. Shipments were deemed successful and these practices will be extended to the southern mango farmer base in the course of activities leading to the 2006 mango season.

Unfortunately, the second planned test sea shipment of mango in the major harvest season during May-July 2006 to consolidate the lessons learned from the pilot mango test shipment in June 2005 was affected by the complete absence of flowering and fruiting of trees in the southern production zone. The proposed test sea shipment was designed to fine-tune the benchmarks established in June 2005. However, TIPCEE continued activities to improve agronomic practices and pest and disease control for farms in the southern and northern production zones through practical on-farm trainings. Depending on the quality and volume of the crop that would be available during the minor season harvest in January and February 2007, TIPCEE may undertake another test sea shipment to European markets.

Papaya

The success of initial pilot shipments for mangoes led to testing similar standards for papaya sea shipments. To compete with Brazil's low-cost sea-freighted papayas, Ghana's papaya industry has to develop the skills and infrastructure for sea freighting. Two large companies which possess the skill and logistics for sea freight began papaya shipments, but other small export businesses need assistance to develop similar skills and logistics. In October and November 2005, TIPCEE provided support to Dansak Farms, a papaya producer and exporter, on two trial shipments of pre-cooled papaya. The EBD team selected the company based on its links to smallholder producers and their experience in cultivation and air-freighting of papaya.

In order to limit potential losses in carrying out the trials, sample boxes, fruit stickers, and pallets were provided for sea freight. TIPCEE covered the pre-cooling charges, container transport cost to port and shipping cost for the two shipments, and provided technical assistance in field and post-harvest activities and training for Dansak's workers. Furthermore, TIPCEE contracted an independent quality inspection company to conduct two quality assessments of products at the destination port. Altogether, 20 pallets – made up of 1,800 boxes (12.6 MT) valued at \$18,800 (FOB) – were exported to two buyers, Minor, Weir & Willis Ltd in the UK and Schumacher GmbH in Germany. The inspection reports from Food Surveys Ltd, Birmingham, UK indicated that the first consignment of 10 pallets arrived in good condition and were sold, although a few fruits showed signs of anthracnose. By contrast, the inspection reports on the second consignment of 10 pallets revealed poor overall quality with a high percentage of fruit showing signs of chilling injuries sustained during transport from Antwerp to the UK. Benchmarks for harvesting, packing into fruit baskets, quality control, and packing into boxes were established during the two shipments with the assistance of a papaya expert.

The shipment trials identified production and post-harvest deficiencies which required correction. A key lesson learned was that the papaya boxes and pallets introduced by TIPCEE were more adapted to container loading than the previous boxes used as they permitted optimal loading and maximized container volume. The company is taking measures to address on-farm technical issues and post-harvest practices, all of which are being integrated into a handbook which will be made available to the industry in the coming months.

C.8 LAST MILE INITIATIVE – BRINGING INFORMATION TECHNOLOGY TO THE FIELD

The Last Mile Initiative (LMI) is a global program to expand access of the rural poor to telecommunications. This is an initiative to spur increases in productivity and to transform the development prospects of farmers, businesses and other organizations in the rural areas presently underserved by communication networks.

By expanding access of the rural poor to telecommunications, TIPCEE aims to increase productivity and transform the development prospects of farmers, businesses and other organizations. This one-year pilot program will be funded under USAID's Last Mile Initiative (LMI). The LMI/Ghana project has three main components: (a) telecommunications-enabled Packhouse-to-Field and Packhouse-Port application, (b) Electronic Exchange to Bar-Coded Logistics Transactions and (c) enhanced advocacy capabilities of the Ghana Internet Service Providers Association. The program is expected to provide "real time" data connectivity along the value chain, from the outlying small farmer groups to their packhouses and

onwards to the port and their end market. Using PDA-based software and GSM mobile phone communication technology, two packhouses, each with five farmer groups/outgrowers of pineapples, will be involved in the pilot phase, which will eventually be scaled up to cover other crops, geographic locations and languages.

To achieve the objective of enhancing field-to-packhouse communications and to improve ICT connectivity in underserved and unserved communities, TIPCEE undertook a survey in collaboration with the Ghana Investment Fund for Telecommunications (GIFTEL) at selected sites of the main pineapple supplier base for Farmapine at Fotobi, Pokrom, Samsam-Odumase, Pepawani, Oboadaka, Otopayaw in the Akwapim South district and in growing areas of the Central Region on a number of farms including Jei River Farm, Georgefields Farm, and Prudent Farms.

The survey identified some farming communities in the Akwapim South district and the Bawjiase areas as lacking a communication network. TIPCEE is working with GIFTEL to ensure that these areas are provided with mobile telephone reception.

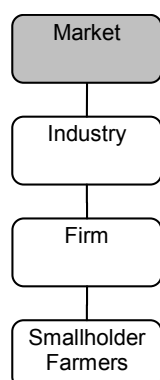
D. Market Intelligence and Strategic Partnerships

D.1 FRUIT LOGISTICA – GHANA MEETS THE WORLD

The market linkages team collaborated closely with GTZ, FAGE, Ghana Export Promotion Council (GEPC), and the National Horticulture Task Force to create a strategy for Ghana's participation in the Fruit Logistica fresh produce fair in Berlin (February 2006). With a record number of 35,000 visitors representing key decision makers at various levels of the supply chain from 112 countries, Fruit Logistica is the main event for Europe's fresh produce buyers. Ghana's



participation in Fruit Logistica 2006 was a great success by all standards and advances the goal to position Ghana as an exporter of quality horticulture produce. Backed by strong industry motivation, a variety of partners supported the planning, implementation and the post-event evaluation and debriefing of this event.



Industry representatives debriefed stakeholders – public and private sector, decision makers and the press – on Ghana's participation in the trade fair. The debriefing also gave stakeholders a first-hand appreciation of market demands and the opportunities and challenges facing the sector. Positive media coverage highlighted the enormous potential of the horticulture sector. The question and answer segment allowed for dialogue with financial institutions and other industry stakeholders which included SPEG, HAG, GAVEX, VEPEAG, YKMA, Papaya and Mango Producers and Exporters Association of Ghana (PAMPEAG) and government officials. Among the suggestions offered was one to promote the adopted logo as a

quality seal for the Ghanaian horticultural industry, which is currently under review.

D.2 8TH INTERNATIONAL MANGO SYMPOSIUM – SOUTH AFRICA

Seven industry participants – including farmers, exporters, mango consultants and researchers – were supported to attend the 8th International Mango Symposium in South Africa from February 1-10, 2006. Designed to increase the level of technical knowledge in the mango industry, the symposium was organized in two phases: a pre-symposium tour of selected mango farms, research institutions, packhouses and processing plants, and the presentation of research on mango. Leading researchers and producers presented best practices from South Africa, Brazil and Australia. Lessons learned at the symposium were presented at the Ghana Mango Week in March 2006. Subsequent presentations based on the Symposium were conducted for farmers in the Somanya and Dodowa areas as part of the capacity building program.

D.3 MANGO WEEK – A CLUSTER EVENT PROMOTING A NEW OPPORTUNITY

In March, GTZ, FAGE, GEPC, NHTF and TIPCEE organized a week-long event with the theme “Mango: The New Big Product for Ghana.” The organizers designed and registered a short-term domain name – www.mangoweekgh.com – dedicated to Mango Week activities. The event registration site was customized to match the event’s marketing materials for an integrated brand image. Over 200 participants registered electronically to participate in Mango Week. As a follow up, the website was upgraded to allow participants to download seminar presentations and link visitors to more information on mango.

Nearly 300 people attended the event, demonstrating strong industry interest. The event, publicized locally and internationally, promoted Ghana as a credible producer and exporter of quality mangoes. For example, BBC ran a story on Mango Week and most fresh produce websites carried articles on the program. Local television networks covered the event with follow-up articles in the major newspapers and on radio. The event brought together relevant stakeholders, including major mango producers, exporters, researchers and buyers from the Netherlands, South Africa, Côte D’Ivoire, Burkina Faso, Mali, India, and others, to share their experiences with the industry in Ghana. Mango Week discussions spanned a range of topics, including supply chain structure and production systems, marketing and processing, research and development, industry support, logistics and quality standards, and perspectives from European buyers.

D.4 DEVELOPING WEB-BASED INFORMATION TOOLS

Mango Week builds momentum for industry

Following on the success achieved during the Mango Week event, TIPCEE supported the NHTF and FAGE to prepare a self-loading DVD on Mango Week containing the complete Mango Week expert presentations, Mango Week TV and radio coverage, and a mango documentary.

The goal was to enable a wider audience in Ghana to access information shared at the Mango Week event as well as additional reference documents related to the mango industry. The availability of these DVDs was advertised on the website.

Interested industry players could order the DVD online, providing a further test and assessment of the e-readiness of industry players to access information through the World Wide Web.

Market updates

To expand the circulation of market trends and updates to industry stakeholders, TIPCEE supported the NHTF and FAGE to develop the website www.ghanafreshproduce.org which will be continuously updated with current market prices for selected commodities, industry statistics, industry news, technical documentation, and pertinent horticultural events. An important feature of the website is the weekly information alerts; these are shared with registered members of the website as an e-newsletter, directing them to the website for additional information.

D.5 DISSEMINATING MARKET INTELLIGENCE

Eurostat training/MIR

A Marketing Intelligence Report containing the latest EU trade figures, import evolution, market shares, growth rates and market opportunities for various products, such as papayas, pineapples, and other tropical and counter-seasonal crops was launched in Accra under the auspices of the National Horticultural Task Force and FAGE. The statistical data have been developed into a quarterly EU Market Intelligence Report. The report was disseminated to key industry members for their comments and input. The final version will also be available on the Ghana fresh produce website. This initiative provides the backbone to the Ghanaian export industry to improve their understanding of the realities and challenges of the EU market. It was a collaborative effort with MOFA, MOTIPSI, GEPC and GIPC.



D.6 PRODUCE-BRANDED INDUSTRY PUBLICATIONS

Several communication tools were developed to portray Ghana as a destination for investment and long-term partnership for major horticulture players. These tools included: (a) the design of a logo which has been adopted by the industry; (b) a professionally designed, auto-run PowerPoint slide show (prepared in English, French, German and Dutch) depicting the critical initiatives that the industry is putting in place to be competitive in the next few years and screened continuously at Ghana's booth at Fruit Logistica; (c) an industry directory in electronic CD and hard copy formats; and (d) industry-branded baseball caps and bags. As a result, Ghana was positively projected to the competitive fresh fruit market and has reaped tangible orders, investments and partnership discussions.

The contents of the exporters' directory and other communication tools developed to portray Ghana as a destination for investment and long-term partnership for major horticulture players for Fruit Logistica 2006, formed the core of



an expanded investor's guide. These investment guides will be distributed to over 20 Ghanaian embassies world wide as part of the drive towards attracting more investors to Ghana.

D.7 ESTABLISHING AND STRENGTHENING MARKET LINKAGES

Market linkage activities supported the establishment of several potential strategic partnerships between Ghanaian exporters and buyers. While promising, they face the challenges of supply response and market integration capacity, issues that the EBD component is currently addressing. Nevertheless, these deals are indicative of the underlying potential of the industry.

For example, one of the conclusions of Fruit Logistica 2006 is that the growth of European demand for Extra Sweet pineapple is expected to continue over the coming years -- doubling the current 600,000 ton, \$400 Million market. With pineapple becoming such a critical item in supermarkets' strategies, the looming climate change issue has become a major concern to distributors. Currently pineapple suppliers are overly concentrated in Central and South America (with their vulnerability to severe weather). This is deemed a critical risk that can only be addressed by diversifying to West Africa, and Ghana has been identified as a target source.

At present four major contacts are being developed by the industry, either on an individual basis or through group marketing arrangements. The latter are made possible through the norms and standards program, which will enable consistent quality across several supplying exporters. The introduction of barcode tracking technology will further supply chain integration and enable efficient pooling of supplies to respond to annual order levels which are planned to exceed 20,000 tons. TIPCEE will continue to assist the industry to improve its capacity to link up efficiently and deepen branding relationships with these major partners.

TIPCEE continued to support and strengthen market linkage activities leading to the establishment of several potential strategic partnerships between Ghanaian exporters and buyers. As a result Ghana continues to attract tangible orders, investments and partnerships with key importers and brands in the fresh produce business such as Chiquita Direct Fruit Marketing, Fyffes, Westfalia, and TFC-Holland BV.

Other TIPCEE activities are yielding new market links. The pilot mango shipments and the Mango Week event raised awareness of Ghana as a credible source for mangoes and several buyers have established contacts with Ghanaian firms to structure long-term programs. In the same manner, the papaya pilot shipments and the baby corn tests have resulted in a great deal of interest on the part of leading importers who recognize Ghana's strong potential for growth which will be enhanced by the current investments in post-harvest infrastructure at Tema port.

D.8 IDENTIFYING AND BENCHMARKING NEW OPPORTUNITIES

TIPCEE continues to collaborate with MOTIPSI to facilitate visits for international buyers such as **Chiquita**, interested in establishing banana plantations and outgrower schemes in Ghana, by helping them with leads and contact facilitation with relevant exporting firms and associations. They are currently concluding the signing

of an MOU to govern a long-term production and supply arrangement with a local producer, Volta Integrated Agricultural Development (VIAD), in the area of pineapple and banana production.

To ensure a positive conclusion of this deal, TIPCEE provided support in the area of generating maps (electronic and hard copies of southern Ghana in four target areas: the Afram plains, Greater Accra, Lower Volta and Eastern Region). Several meetings were also held to provide contracting support to potential pineapple producers who expressed interest in joining the Chiquita banana sourcing plan from Ghana. This initiative has culminated in the drafting of an MOU which has been submitted to Chiquita for their review and comments.

These initiatives reflect the close collaboration with TIPCEE's Enabling Environment component team which will propose recommendations to the Government of Ghana's banana trade policy deliberations. MOTIPSI has been a strong partner in these developments. Plans call for TIPCEE to play a major role in facilitating development of over 3000 hectares of banana farms in the coming years, which could eventually translate into over 15,000 direct jobs and over 75,000 indirect jobs in rural areas surrounding the Volta River.

In collaboration with **Royal Ahold**, TIPCEE facilitated a technical trip by **Westfalia**, the leading South African mango and avocado producer, to explore the potential of growing and investing in avocado plantations in Ghana. This would extend the group's marketing season beyond the segments currently serviced by South Africa. Avocado has the potential of becoming an important source of income for smallholder farmers. The Kwahu Plateau has the greatest potential for avocado production due to its relatively cooler climate. The trip successfully opened up the development of other collaborative opportunities with ITFC Ghana on mango production and supply arrangements.

An important feature in these trade missions is the capacity building effort that TIPCEE manages to thoroughly prepare the industry players to handle international business-to-business transactions more effectively. With the collaboration of SPEG and MOTIPSI, roundtable discussions shared lessons learned and prepared industry players for investor engagements.

SECTION III. ENABLING ENVIRONMENT ACTIVITIES

The Enabling Environment (EE) component is designed to achieve results that improve the ability of the private sector to grow, attract private investment to Ghana, and compete in world markets. Through enhanced public-private dialogue, capacity building of key policy units, and improved policy analysis, formulation, implementation and monitoring, the EE component endeavors to achieve significant policy changes to improve the private sector operating environment.

A. Trade Sector and Private Sector Development Policy

Ghana recently crafted a trade policy within the context of Ghana's long-term strategic vision of achieving middle-income status by 2012 and becoming a leading African agro-industrial country. It is designed to ensure a consistent and stable policy environment within which the private sector and consumers can operate efficiently. The fundamental principle underlying trade policy is that the private sector is the engine of growth, with government providing an enabling environment to actively stimulate private sector initiatives. The actual implementation of this trade policy will occur through a Trade Sector Support Programme (TSSP). The TSSP will be driven by MOTIPSI, but coordination with other ministries such as Finance and Economic Planning, Roads, Ports and Harbours, MOFA, and others is essential.

The major issues facing the trade sector include:

- Inability of private sector to play its critical role as the engine of growth; and
- Need for implementation of trade policy in numerous areas such as:
 - Standards
 - Multilateral trade
 - Fair and transparent import-export regime
 - Trade facilitation
 - Production capacity for domestic and export markets
 - Consumer protection
 - Protection of intellectual property rights

The EE component's trade policy activities are driven by the requests of our private sector partners, government-identified needs through TSSP, and the component's resource envelope. Our private sector development efforts focused on the implementation of the Policy and Regulatory Impact Assessment (PRIA) and the Programme Intervention and Evaluation Template (PIET).

A.1 TRADE SECTOR SUPPORT PROGRAMME (TSSP)

Following the launch of the TSSP in October 2005, collaboration on a work program with MOTIPSI commenced. Its focus on several key areas, including import/export regime, trade facilitation and standards, complements efforts by GOG programs and other donor efforts. TIPCEE's approach forges an effective partnership in which MOTIPSI staff will be included on teams with local and international consultations as a means to build sustainable capacity at the Ministry. Collaboration on several projects began during Year 2.

Import-Export Regime

Establishing an effective rates of protection methodology: In collaboration with MOTIPSI staff, TIPCEE seeks to provide policy makers (Proposed Tariff Board) with an informed basis for designing tariff regimes to protect local industries. Experience has shown that tariffs are often put in place in an *ad hoc* manner, without any scientific basis to protect local industries. Typical examples are the 20% tariff rates on imported rice and imported poultry products levied in 2003 which had to be rescinded because they were not properly conceived. Consequently, the goal is to establish a framework for analyzing tariffs to facilitate the work of the Tariff Board which will have to make critical decisions about tariff protection for local industries. Tariffs can and do have multiple objectives which are not necessarily compatible, and the nominal rates of protection are typically different from the effective rate or overall impact of protection. Thus, the methodology developed in this study will inform policy makers of the unintended consequences of particular tariff schemes they may be considering.

During Year 2, TIPCEE and MOTIPSI designed the questionnaire to elicit tariff impact data from up to 100 companies in selected sectors. Pilot interviews validated the survey instruments. Next steps included an informational meeting for Tema/Accra firms taking part in the study and training for regional and local trade officers who are currently conducting the survey. Data collection should be finished by the end of 2006 and analysis completed in the first quarter of 2007.

Strengthening Capacity to Administer Contingency Trade Measures: This activity has three objectives:

- To inform key stakeholders in the public and private sectors regarding the trade remedies available under the World Trade Organization (WTO), including Agreement on Subsidies and Countervailing Duty Measures, Agreement on Safeguards, and Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade 1994 (anti-dumping measure). These stakeholders include:
 1. A broad array of staff from relevant MDAs
 2. Selected MOTIPSI personnel
 3. Representatives from the private sector: FAGE, Association of Ghanaian Industries (AGI), Private Enterprise Foundation (PEF)
 4. Press and media
- To provide education and tools to key MOTIPSI officials so that they are able to administer the trade remedies consistent with Ghana's WTO obligations.
- To provide MOTIPSI with recommendations regarding the responsibilities and functions of the proposed Tariff Board, and to provide recommendations for the optimal institutional administration of the trade remedies, considering the resources of MOTIPSI and the proposed Tariff Board.

Currently, research has commenced on successful tariff board structures in other developing countries for a comparison of models. This research will be provided to the Ministry, and follow-up activities may include a workshop for government stakeholders to exchange ideas and discuss alternative models. In Year 3, a study tour for potential tariff board staff is planned to inform key decision makers on successful models and lessons learned for implementation.

Streamlining Duty Drawback Scheme: Positive steps have been taken in recent years to modernize the duty drawback scheme, but there is still criticism from private

sector operators regarding the procedures and time required. TIPCEE is currently supporting the discussion of proposals for change with key stakeholders including MOFEP, RAGB, CEPS, Bank of Ghana, and MOTIPSI. After new procedures have been finalized TIPCEE will support a training program for exporters and agents.

Multi-Purpose Free Zones System: Private sector concerns regarding access to free zone status were incorporated into the tariff study survey of companies currently underway. Subsequent activities will be proposed in consultation with the Free Zones Board and relevant MDAs. Customs controls, procedures and practices in the free zones will be brought in line with international best practices: reduced and more strategic physical inspections and emphasis on the examination of documents and post-audit controls.

Trade Facilitation

Reviewing Fee Structure for Goods Clearance: An audit of existing fees charged for customs operations, seaport services, and airport services in Ghana will commence in Q1 of Year 3. The review will compare the costs of the same service in Ghana's main competitor countries in the subregion and in Latin America. The review of the costs in the subregion will determine how competitive Ghana is vis-à-vis its competitors in West Africa. The Latin American data will serve as a benchmark against which to measure Ghana's fees, as Latin America is a key competitor for fresh horticulture goods. Based on this analysis, TIPCEE will make specific recommendations to MOTIPSI and relevant stakeholders for a new fee structure based on benchmarking as well as appropriate measures for implementing the proposed structure.

Bringing Valuation Procedures in Line with WTO Valuation Agreement: This activity involves identifying the gaps in the implementation of the WTO Valuation Agreement so that recommendations can be made to MOTIPSI on measures to bring valuation procedures into full conformity with WTO requirements. MOTIPSI will be advised on possible trade-related impacts and mitigating measures. Training tools will be developed to educate Customs Officers in properly administering the WTO Valuation Agreement. Similarly, education and tools geared to MOTIPSI officials will help them properly monitor and document the implementation of the Agreement. During this activity, issues regarding the transition of valuation activities from domestic inspection companies to CEPS will be explored.

During Year 2 TIPCEE recognized that one of the serious challenges facing its collaborative efforts with MOTIPSI is the dispersion of TSSP activities and programs across MDAs. Consequently, TIPCEE has initiated dialogues with some of these other MDAs that are critical to the success of the TIPCEE/MOTIPSI collaborative effort including CEPS, MOFEP, and the Revenue Agencies Governing Board.

A.2 PRIVATE SECTOR DEVELOPMENT

PRIA/PIET – Policy and Regulatory Impact Assessment/Programme Intervention and Evaluation Template Awaiting Implementation

The Ministry for Private Sector Development (MPSD) –folded into the Ministry of Trade and Presidential Special Initiatives (MOTIPSI) in May 2006 – developed the Policy and Regulatory Impact Assessment (PRIA) and the Programme Intervention Implementation Template (PIET) tools in 2004 to inform the Government's policy and

regulatory decisions as well as the Government's program interventions. The introduction of these decision-making tools forms part of the Government's broader objective to promote best practices in the policy management process through the implementation of the Ghana Central Governance Project – a program of the Government of Ghana with assistance from the Canadian International Development Agency (CIDA). When fully operational, these frameworks will lead to more efficient government program interventions and an improved policy and regulatory environment to promote private sector development.

Building on USAID support for the development of the PIET under TIRP, TIPCEE provided technical support for the development of an implementation plan to roll out these two decision-making tools. Following the Cabinet's approval of the plan, TIPCEE provided guidance to the MPSD for the roll-out of various activities identified in the implementation plan. Funding for these activities will be provided by donor pooled funds currently being managed by the MPSD. MOTIPSI expects to set up a new Policy Analysis Unit to provide support to Ministries, Departments, and Agencies of government on policy formulation and management using tools such as the PRIA and PIET. TIPCEE is in dialogue with MOTIPSI to support this process once the Unit is established.

B. Financial Sector Policy

An important engine of economic development is a sound, functioning financial system that provides a mechanism for mobilization of savings and its allocation to productive economic activities. Additionally, the financial system provides a myriad of ancillary services such as payment systems and market information that enhance the efficiency of the private sector. Competitiveness for private sector firms is reflected in the ability of firms to be profitable in open markets. Other things being equal, firms operating in countries with more efficient financial services will have better access to short- and long-term capital and other financial services at a lower cost and will have a competitive edge. Well-functioning financial markets also encourage both foreign and local investment in private sector endeavors – particularly export-oriented transactions.

The EE component's financial sector activities are designed to improve the efficiency of financial services delivery to the private sector, thus enhancing competitiveness.

The major issues facing the financial sector include:

- Low rate of savings;
- Lack of access to long-term capital, especially for small and medium enterprises;
- High intermediation costs reflected in high interest rate spreads;
- Inefficient capital markets;
- Poor access to financial services in rural areas; and
- Weak regulatory systems.

Financial sector activities are focused on broad support for implementation of the FINSSP through the newly created Financial Sector Division of MOFEP. By agreement with MOFEP, support will be provided for the following specific components of FINSSP:

- Venture Capital Trust Fund (VCTF)
- Long-Term Savings Plan

- Establishment of a monitoring and evaluation system for FINSSP
- SEC review of Takeovers Regulations and the Over-the Counter-Market
- Regulatory review of the Non-Bank Financial Institutions
- Study of interest rate spreads
- Financial Literacy Week

To facilitate these activities and work closely with the new Financial Sector Division, a long-term advisor was embedded in the Ministry in January 2006.

B.1 OPERATIONALIZING THE VENTURE CAPITAL TRUST FUND

During Year 2, experts drafted the Venture Capital Trust Fund guidelines, which were then vetted by an international best practices consultant. The Board of the VCTF, appointed December 2005, reviewed and submitted the guidelines to a stakeholders' forum for discussion and feedback. The Board approved a final version which the Minister of Finance and Economic Planning is reviewing before adoption. The next step will support the training of fund managers, preparation of a monitoring and evaluation system and structuring a technical assistance scheme for investee companies. This work will begin as soon as the Board signs off to proceed.

B.2 FINALIZING AMENDMENTS TO THE LONG TERM SAVINGS ACT

Technical assistance for the Long Term Savings (LTS) Plan was envisioned to cover:

- Technical assistance for drafting regulations;
- Support of public-private dialogue on draft regulations;
- Support of dialogue with Parliament on a draft legislative instrument when tabled in Parliament; and
- Capacity building for LTS Commission including:
 - Governance training for commissioners;
 - Orientation for fund managers; and
 - Preparation of operations and supervision manuals.

In response to concerns raised by the World Bank and other key stakeholders, MOFEP agreed to appoint an independent counsel to review, among other issues, the respective roles of the SEC and the LTS Commission, contribution limits, and the structure of plan management fees. TIPCEE's assistance was therefore restructured to support the review which commenced in April 2006. The independent counselor's report was submitted to MOFEP in July 2006 and was reviewed by a Technical Committee which includes TIPCEE experts. Following the review, the committee made recommendations to Cabinet on appropriate amendments to the current Long Term Savings Act. TIPCEE will support stakeholder consultations and parliamentary dialogue to facilitate the passage of either a new bill or amendments to the current Act in Year 3.

B.3 ASSIST SEC DRAFTING OF TAKEOVER RULES & PLAN FOR OVER-THE-COUNTER MARKET AND REGULATORY & DEVELOPMENT PLAN

During this period, a local and an international consultant conducted a review of the over-the-counter market and mergers and acquisitions processes and policies, and

included input from private sector traders, banks, and GOG agencies. The objective of the review was to design a developmental plan and regulatory framework for the over-the-counter market and draft a new Takeovers Code. EE consultants presented preliminary findings to the SEC and other stakeholders in late March. The final reports and recommendations were delivered to the SEC in August 2006. The report noted that the over-the-counter market is seen as having the potential to create new opportunities for many smaller companies that do not want a full listing. The new development plan and regulatory framework will enable the full potential of the over-the-counter market to be realized. On mergers and acquisitions, conflicts in previous takeovers were documented and addressed in the draft code. The draft code will also improve transparency and equity to all parties during takeovers.

B.4 SUPPORT TO REFORM OF NON-BANK FINANCIAL SECTOR

The Financial Sector Strategic Plan identified Non-Bank Financial Institutions (NBFIs) regulation as an area for reform. The Plan recommended that the Financial Institutions (Non-Banking) Law be revised to remove ambiguities in the objectives of regulation, and to liberalize the regime for the development of NBFIs (savings and loans, mortgage companies, credit unions, etc.). An analysis paper outlining these reforms was produced and discussed with FINSSP, MOFEP, and BOG. The paper proposed a framework for regulating NBFIs that would segment the sector into depository and non-depository NBFIs. This improves the current framework which puts all NBFIs into a common regulatory framework. After an initial review from these institutions, the recommendations were submitted to the BOG for formal endorsement of the broad approach to regulatory reform. In September 2006 the BOG provided very positive feedback on the paper and has accepted the major policy recommendations made in the proposals. A draft policy consultation paper will now be drafted outlining the major regulatory reforms proposed for wider stakeholder consultation. A draft Bill will then be prepared in line with international best practice to reflect stakeholder consensus on the policy issues. The new NBFi bill is expected to be tabled in Parliament in 2007.

B.5 INTEREST RATE SPREAD RESEARCH

At the request of the Minister of Finance, EE staff prepared a paper on interest rate spreads to determine the key causes of the very high spreads between the savings and lending rates of Ghanaian banks. A review workshop was held in September 2005 where participants were drawn from the financial sector, academia, and government to provide input into the draft paper. The paper was revised to reflect the input received during the workshop. A policy brief and the full paper were then submitted to the Minister of Finance, Governor of the Bank of Ghana, and other key stakeholders, and presented to the Minister of Finance and his officials in March 2006. The Minister expressed his appreciation for the contribution and encouraged EE staff to proceed with the additional research as needed to better explain the factors that drive high interest rate spreads in Ghana and produce recommendations for alleviating these factors. EE staff members are designing further work on the research questions raised in the initial study concerning the impact of economies of scale and industry competitive structure on bank operating costs and interest rate spreads. This will be conducted and concluded in Year 3.

B.6 FINANCIAL LITERACY WEEK SURVEY

Financial Literacy Week is aimed at educating the general population about the opportunities and pitfalls of credit and savings. It will also provide an opportunity to inform Ghanaians about how the new regulations affect everyday transactions. TIPCEE prepared and circulated a plan to MOFEP and other development partners. MOFEP has given authorization to undertake a baseline financial literacy survey to guide preparations for Financial Literacy Week. It is expected that this survey will be completed by the end of 2006, and that Financial Literacy Week will be held during March 2007.

B.7 LAUNCHING FINANCIAL SECTOR DIVISION

The Minister of Finance requested support for the establishment of a Financial Sector Division within the Ministry. USAID and the Ministry agreed to embed a technical advisor in the Ministry for the establishment of the division effective December 1, 2005, under a SOW that covers the following:

- Supporting the implementation of the Financial Sector Strategic Plan;
- Advising on design of structure, functions and operating procedures and systems of the Financial Sector Division;
- Designing and implementing a training program for staff of the Division;
- Providing ongoing policy advice to the Ministry on financial sector development; and
- Building capacity of the Policy Analysis Unit at MOFEP.

The advisor relocated to MOFEP in January 2006 and has guided the EE component work plan activities including confirmation of technical assistance to the VCTF, securing MOFEP approval to proceed with the LTS review, and arranging ministerial review of the Interest Rate Spread paper. In addition, he designed an organizational structure for the Financial Sector Division which awaits ministerial approval.

The advisor also contributed to several additional MOFEP activities that are key initiatives for the financial sector. These include:

- Representation of MOFEP on the National Advisory Committee for the establishment of an International Financial Services Centre;
- Leading MOFEP's activities toward the issue of a Sovereign Bond by the Government of Ghana;
- Providing corporate finance advice to the Ministry of the divestiture/privatization of key state enterprises such as State Insurance Company, GOIL, Tema Oil Refinery, Ghana Telecom and Westel.
- Assisting the Minister to present key legislation such as the Foreign Exchange Bill and Credit Reporting Bill at cabinet meetings; and
- Participating in IMF and MDBS review meetings.

C. Agriculture Sector Policy

The agriculture sector continues to dominate economic activity in terms of its contribution to GDP and employment levels. Ghana is highly dependent on agriculture for its foreign exchange earnings from cocoa and timber and from non-traditional exports such as pineapple, papaya, mango and banana. This sector is

also particularly important for food security. Unfortunately current agricultural policies do not give clear direction to the private sector and are subject to frequent change thereby creating an environment which is not conducive to private sector growth.

C.1 SUPPORTING REVISION OF FOOD AND AGRICULTURAL SECTOR DEVELOPMENT POLICY

During this reporting period work continued with MOFA to begin revising the FASDEP document with an aim to linking the agriculture strategy to GPRS II goals of economic growth for Ghana. A revised FASDEP will clarify the appropriate roles of government, private sector, academia/research and development partners to improve the competitiveness of the agricultural sector and support the GPRS II export-led growth approach. To ensure buy-in by all stakeholders, the review process involves extensive analysis and public-private dialogue among stakeholders. A review of various evaluation documents was conducted on MOFA programs and projects followed by recommendations on the necessary building blocks for the revision of the FASDEP.

A stakeholders' forum was held in January 2006 to discuss and build consensus on the proposed building blocks. Following the forum, MOFA formed thematic groups related to the focus areas defined in the building blocks to facilitate the drafting of the various sections of the document. The thematic groups have been inaugurated with EE staff providing technical support and input to the process. Draft thematic reports were delivered to MOFA in September/October 2006. In Year 3, TIPCEE will provide technical assistance for the production of a draft report for dissemination and discussion. After the new FASDEP is finalized (now scheduled for March 2007), TIPCEE will coordinate with DFID on activities emanating from the final report. DFID will focus on implementation strategy development while TIPCEE will support MOFA in drafting necessary legislative and administrative instruments, and conduct legislative reviews and sensitization sessions with parliamentarians, as needed.

C.2 REVISING PESTICIDE REGULATIONS AND TRAINING OF REGULATORS AND INSPECTORS

The EE team has been collaborating with the EBD team to improve the legal and regulatory framework for pesticide importation, manufacture, registration, labeling, advertising, inspection, distribution, storage, use and disposal in Ghana. Work commenced with the Ghana Environmental Protection Agency (GEPA) and with MOFA's Plant Protection and Regulatory Services Directorate (PPRSD) to make certain that effective and safe pesticides are available to producers, and that environmentally destructive pesticides are removed from the market.

USAID's Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP) noted that a serious constraint to the export of horticultural products

Pesticide Management Fund Established

The new draft pesticide regulations require establishment of a Pesticide Management Fund. In response, TIPCEE has organized fora for the public and private sector actors (EPA, PPRSD, academia, private pesticide dealers) to discuss and establish the fund, its operating principles, and the level of the levy. The fund will be used to promote quality control (monitoring of fake and adulterated pesticides) within the country and establish a training program on safe use of pesticide, enforcement, information dissemination and education and consumer health. The stakeholders also designated a laboratory as the National Quality Control Lab based on results from a study undertaken by TIPCEE. These efforts will help to finalize the drafted pesticide regulations and ensure effective implementation.

from Ghana is the management of agro-chemicals. There are two interlinked European Union (EU) statutes associated with pesticide use that hinder developing country growers' ability to export fruits and vegetables to the EU, the Maximum Residue Level (MRL) and Harmonization Program, and the Pesticide Approval Review Program. There is an urgent need to develop cost-effective, responsive and efficient mechanisms for pesticide regulatory adjustments to meet private sector needs to respond to market demands. The Ghana Environmental Protection Agency (GEPA) has been slow to prepare pesticide regulations after the enactment of Act 528 (1996) to give clear direction to private sector operators.

During the reporting period support was provided to revise or draft seven regulations required for the implementation of the Pesticide Control and Management Act (Act 528). A local consultant drafted three regulations and an international consultant reviewed all seven regulations in terms of best practices. A stakeholders' forum in January 2006 reviewed the draft regulations. A proposed pesticide management fund is being addressed in consultation with industry players and regulators as a follow-up to the forum. A legal specialist subsequently reviewed the drafted regulations. As soon as the regulations are approved by Parliament the EE component will support training on the new regulations for regulators (CEPS, police, GEPA inspectors, and PPRSD inspectors) and private sector stakeholders (pesticide importers, wholesalers, and retailers). These activities on pesticide control and management issues are directly linked to TIPCEE's Initial Environmental Examination (IEE) and the Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP).

C.3 DEVELOPING A HORTICULTURE COMPETITIVENESS FRAMEWORK

During Year 2, TIPCEE met with various stakeholders in the horticultural industry to develop a concise document on the potential of horticulture in Ghana. In Year 3, this document, which spells out the cluster-based competitiveness agenda for both the private and the public sector, will be refined, published and distributed to relevant industry stakeholders, Government of Ghana officials, and financial institutions. The report will contain a cluster map showing all the actors in the industry, including exporters, suppliers, service providers, associations, and GOG MDAs.

D. Other Sector Activities

Trade, finance and agriculture form the core of TIPCEE's policy activity areas, however other sectors impact private sector development in general, and horticulture exports specifically. To that end, TIPCEE pursues discrete projects in other policy sectors on a case-by-case basis. During Year 2 these sectors included macroeconomic policy, labour, energy, and information and communication technology (ICT).

D.1 MACROECONOMIC, MONETARY AND FISCAL POLICY

Fiscal and monetary policies impact competitiveness directly. Exporters cannot be competitive in an environment of high inflation, high interest rates, and an over-valued currency. It is therefore imperative that monetary and fiscal policy is geared towards achieving and maintaining macroeconomic stability. This is characterized by an environment of fiscal and monetary discipline, low inflation, relative exchange rate stability, and low interest rates. The process of achieving and maintaining macroeconomic stability is complex as it involves sometimes politically difficult policy and structural reforms.

Major issues affecting monetary and fiscal policy include:

- Insufficient analysis to guide monetary policy, including monetary integration;
- Lack of appropriate legislation to improve the efficiency of the financial sector; and
- Inadequate capacity of key policy units to conduct necessary analyses.

Monetary Policy Activities

The embedded advisor in the Bank of Ghana (BOG) was the primary technical resource for the Monetary Policy Committee until his appointment as Deputy Governor. In that role, he led a team of economists in analyses and other preparatory work for the Committee meetings, and attended all Committee meetings to provide technical input. This capacity building continued after each meeting to include the development and release of five publications on the topics of inflation, external conditions, financial stability, and fiscal and monetary issues. Further analysis on the business sector is effected with a bi-monthly survey of 45 companies to assess business activity and confidence. These data are not released to parties outside the Bank, but public indexes are created from the results such as the level of business activity and consumer confidence.

Congratulations!

Dr. Mahamudu Bawumia, long-time USAID-supported technical advisor at the Bank of Ghana, was named Deputy Governor in June of this year. His resignation from the TIPCEE project for this position is a ringing endorsement of USAID-sponsored assistance to the Bank over the past five years. Congratulations, Dr. Bawumia!

The advisor regularly provided technical analyses to guide the macro and monetary framework discussions between GOG and the IMF. In this role he was involved in coordinating efforts between the BOG and MOFEP regarding financial programming for IMF discussions. During this period he also:

- Organized a stakeholders' meeting on the Credit Reporting Bill at the Bank of Ghana. Participants included the Ghana Bankers Association, private sector operators, Ministry of Finance and Economic Planning, International Finance Corporation, and the FINSSP Secretariat. The bill awaits full Cabinet approval.
- Provided technical support for and organized a forum to discuss the draft Foreign Exchange Bill. This Bill has been presented to the Cabinet Subcommittee of Finance and Economy by the Minister of Finance and now awaits full Cabinet approval.
- Prepared a policy brief for the Governor and attended a Cabinet oversight committee meeting (Chaired by the Senior Minister) on the sovereign bond issue.
- Helped to coordinate Fitch and Standard and Poors' sovereign credit ratings visit. Provided comments on the initial Fitch report which led to changes by Fitch.
- Prepared Bank of Ghana's comments on Ministry of Finance proposals to recapitalize the Tema Oil Refinery (TOR). Advocated privatization of TOR and the transparent publication of the automatic pricing formula.
- Provided oversight for the ongoing work of the Econometric Modeling Group on the Bank of Ghana Macroeconometric Model.

- Contributed to the financial services section of the Millennium Challenge Corporation (MCC) proposal, outlining the inherent constraints and recommending ways to increase efficiency in that sector. He provided similar support to the MCA Ghana team during this period when he reviewed the options for the interconnectivity of rural banks through a Wide Area Network and made a recommendation on next steps.

Regularly throughout the period the advisor coordinated with the Ministry of Finance to monitor end of 2005 Government fiscal position, and provided a daily assessment of liquidity conditions on the money market at the Bank's Liquidity Forecasting Committee meetings. An assessment of economic data for the Bank's Open Market Committee Meetings was provided on a weekly basis, and each week TIPCEE's expert attended the Bank's Auction Committee meetings.

Growth and Poverty Reduction Strategy (GPRS II)

Key EE staff supported the development and drafting of Ghana's second phase poverty reduction strategy. GPRS II has been officially adopted and widely distributed as Ghana's blueprint for socioeconomic transformation. GPRS II has changed its focus from GPRS I (which emphasized poverty reduction expenditures) in two significant ways. First, GPRS II emphasizes Ghana's goal of accelerated economic growth and wealth creation to reduce poverty, and as the means for making Ghana a middle income country with a per capita income of at least \$700 by 2009, and \$1000 by 2015. Second, GPRS II is a comprehensive national development policy framework integrating Millennium Development Goals, the New Partnership for African Development (NEPAD), and the relevant policy documents of the Ministries, Departments and Agencies (MDAs). These policy frameworks include the Private Sector Development Strategy, the Financial Sector Strategic Plan (FINSSP), the Trade Sector Support Programme (TSSP), the Food and Agricultural Sector Development Programme (FASDEP), and others.

The EE team has continued to assist the National Development Planning Commission (NDPC) and Ministry of Finance and Economic Planning (MOFEP) to ensure that GPRS II feeds the Medium-Term Expenditure Framework (MTEF) process, and that there are explicit links between annual budgets and the plans and policy priorities of GPRS II. An EE team member is collaborating with the NDPC and MOFEP in the development of indicators for assessing macroeconomic progress of GPRS II. TIPCEE will continue to support the GPRS II process to ensure that it is the master plan that feeds the budget.

Analysis of Exchange Rate Policy

Ghana has crafted its growth agenda, Growth and Poverty Reduction Strategy II (GPRS II), around an export-led growth strategy. This requires an exchange rate regime that will provide the necessary incentive framework for exports and import-competing products as the drivers for wealth creation and poverty reduction. Yet, the appreciation of the exchange rate since 2002, both in nominal and real terms, has raised a critical question. What should the exchange rate regime be in a developing country such as Ghana, especially when the



main sources of foreign exchange earnings are from cocoa, gold, and remittances? The present exchange rate regime has become both a cause and consequence of how cocoa and gold earnings and remittances are managed subject to Ghana's growth agenda. The effect of exchange rate changes on trade flows, inflation, and output growth and configuration demonstrate that trade-offs are inevitable and must be addressed if Ghana is to have an optimal policy mix.

TIPCEE began during the past year to investigate the role and performance of the current exchange rate regime. An analytical paper emphasized the trade-offs that will enhance the country's competitiveness in promoting an export-led growth strategy against such other competing objectives as price stability with single-digit inflation, growth of domestic industry producing import-competing goods, and the non-traded goods industry. TIPCEE hosted a forum to discuss its paper and through this dialogue identified further research to be carried out during the first half of next year on the following themes:

- Equilibrium exchange and choice of exchange rate regime.
- Exchange rate trends and implication for the export sector and import-competing industrialization.
- Exchange rate and efficient market conditions.

Other Macroeconomic Activities

Assistance and support to other donor efforts on macro issues included the Canadian Development Centre forum to educate Parliamentarians on the 2006 Budget and Economic Policy Statement of Government. At a three-day workshop held in Elmina in November 2005 Parliamentarians were taken through the key macro issues in a non-partisan manner, thereby equipping them with the relevant information before they started the debate on the 2006 budget in Parliament. At the World Bank office in Accra, EE staff presented its views on the 2006 budget to the donor community in a video conference involving the IMF in Washington. Analysis of the issues, especially the outlook for inflation and exchange rate vis-à-vis Ghana's competitiveness was presented.

EE staff have continued to examine the sources of growth in GDP and how government is managing the disinflation process. TIPCEE continues to discuss these with the World Bank, MOFEP, the Ghana Statistical Service, and Parliamentarians. In particular, TIPCEE continues its analysis of inflation and exchange rate vis-à-vis Ghana's competitiveness. Preliminary findings that the exchange rate may be highly appreciated is gaining acknowledgment among a variety of stakeholders. In addition, pilot surveys conducted as part of the Tariff Study have revealed the seriousness of the exchange rate factor in firms' overall competitiveness. This has implications for Ghana's GPRS II, which emphasizes an export-led growth strategy. It is now imperative to expedite action on the exchange rate study in order to understand the trade-offs in the disinflation process.

D.2 LABOUR POLICY

During Year 2, TIPCEE continued its support for targeted labour market policies aimed at promoting labour market competitiveness within the framework of Labour Act 651 and National Labour Commission (NLC) operations. Prior to the passage of this law, individual employment contracts came with many obligations to the employer. These obligations did not necessarily translate into monetary rewards to

the workers but invariably added to the cost of labour employment. Furthermore, although the minimum wage in Ghana is extremely low, employers believed that it was not the minimum wage *per se* that was the constraint to increased employment but other legal commitments to individual contracting, termination of labour contracts, collective and contract conflicts, and special regulations governing formal sector employment.

It is against this background that the Labour Act 651 of 2003 was crafted to move the economy forward with flexible labour practices. Labour Act 651 has purged labour contracts of most of these inflexible practices and has consolidated almost all laws related to industrial practice into one document. Other key features that will enhance Ghana's labour market are the creation of independent bodies such as:

- The provisions for private employment centres in addition to public employment centres established under NLCD 157;
- Establishment of a National Labour Commission, with equal representation from Government, organized labour and employers, and a chairman jointly nominated by employers and organized labour. Among its functions, the NLC is to receive complaints from workers, trade unions, and employers or employers' organizations, and expedite the resolution of industrial disputes without recourse to lengthy judicial processes; and
- Provision of legal status to the National Tripartite Committee to advise on employment and labour market issues, including labour laws, international labour standards, industrial relations and occupational safety and health, and to consult with partners in the labour market on matters of social and economic importance.

Although the Labour Act has passed, it has not been fully implemented, especially with respect to the National Labour Commission and the National Tripartite Committee. The major issues facing the labour sector include:

- Lack of various legislative instruments to fully implement the new Labour Law, Act 651;
- Insufficient awareness among stakeholders that the Labour Law calls for new ways of doing things in the labour market;
- Failure to establish the various institutions provided for by the Act such as the National Tripartite Committee; and
- Inadequate capacity for analysis of such issues as income and productivity.

National Labour Commission

TIPCEE continues to support selected core activities of the National Labour Commission (NLC):

Capacity Building for Commissioners and the Administrator of the NLC: With the support of USAID, a one-week intensive training program was conducted in Washington, DC for four Commissioners and the Administrator of the NLC in cooperation with the Federal Mediation and Conciliation Services (FMCS) and the National Labor Relations Board (NLRB). As a new institution without precedent to



guide its mediation, conciliation, and arbitration functions, the NLC's need for information regarding best practices was critical. This training was designed to assist the NLC to build sound practices and respond to pressure by multiple stakeholders, some of whom had conflicting ideas about how the NLC should operate. The exposure to multiple ideas from the U.S. as well as other countries should help the NLC clarify its priorities and establish a plan to implement its goals.

An Operational Plan for Strengthening the National Labour Commission: To further support the NLC, TIPCEE assisted with the development of an operational plan for strengthening the National Labour Commission. Over a two-week period in January 2006, a consultant met with the Commissioners and the staff of the NLC, as well as members of groups representing workers and employers, to identify the needs and challenges faced by the NLC in promoting adherence to Ghana's new labour law, Act 651. This effort served as the basis for the operational plan and helped the NLC prioritize their needs and goals to facilitate labour competitiveness, providing the Commission with a strategic focus to give clear direction to its activities with a results-oriented outline. For those activities outside of USAID's support, the NLC now has a plan to seek support from other development partners working on labour issues.

Sensitization Workshop for Parliamentarians: With USAID support, the NLC organized a one-day workshop in December 2005 to educate the Parliamentary Select Committee on Labour, Employment, and Industrial Issues on the critical role of the NLC. This workshop aimed to inform the members of Parliament who passed the law on the implications of the Act, especially the autonomy granted to the NLC to adjudicate labour disputes. The need for this workshop was evidenced by the involvement of Parliament in a number of issues brought before the NLC. Typical of this concern was the National Association of Graduate Teachers (NAGRAT) strike, which the NLC declared illegal, and after which Parliament intervened with a contrary view. Against this background the workshop was organized so that these members of Parliament could educate their colleagues about the objectives of the new labour law – to enhance transparency in labour dispute resolution and to promote labour competitiveness. Since the workshop, Parliament has been cautious in its pronouncements on labour disputes and very explicit that disputants should go to the NLC for peaceful settlement. Thus, for example, in the second impasse between NAGRAT and government in September-October 2006, Parliament has advised the two parties to go to the NLC for quick resolution of the dispute so that the teachers can go back to the classroom.

Sensitization Workshop for Health Workers including Medical Doctors: One group of high-profile workers whose actions were not consistent with the Labour Act, as a result of a lack of awareness, were health workers, including nurses and doctors. The Labour Act designates certain activities or professions – health services, for example – as essential services. Workers in these professions cannot go on strike due to the irreparable damage that would result during and after the strike. Hence, medical doctors and nurses are not permitted to strike. Yet they were the main group of workers who frequently resorted to strikes after the promulgation of Labour Act 651. To educate them and stem the tide of strikes, the EE component assisted the NLC to organize a three-day training workshop in October 2005 for the core groups within the health sector. Health service workers learned about provisions in the Act to expedite dispute resolution and forestall strikes. Moreover, complying with the Act by using the NLC is to their advantage as well as for the benefit of all Ghanaians.

Developing a Communication Strategy for the NLC: In spite of the passage of time and extensive media attention, it is evident that many Ghanaians, including those in government, are not conversant with the provisions of the new labour law, Act 651 of 2003. To educate the key stakeholders on the critical provisions of the law, the NLC organized a series of targeted workshops. Practically speaking, an uncountable number of such workshops are needed to reach a critical mass of the population. The resources are not available, and even if they were, such workshops cannot reach all the audiences targeted by the NLC. Consequently, TIPCEE has initiated a program to support the NLC to craft a communication strategy that will deliver a consistent message, targeted to specific interests, and presented in a creative format. This program will be a tripartite effort with the NLC, TIPCEE, and a local communications firm.

D.3 ENERGY POLICY

Regulations for the Secondary Market for Natural Gas

An adequate and efficient supply of energy is fundamental to economic development as it constitutes an important resource in production. Ghana's energy sector consists mainly of electricity (hydroelectricity and thermal), oil and gas, biomass (charcoal), renewable energy sources, and natural gas. Charcoal currently accounts for about 67% of total energy consumption in Ghana, whereas electricity and petroleum products account for 10% and 23% respectively. Energy sector activities are designed to improve efficiency and reduce the cost of the delivery of energy products to the private sector, thus enhancing competitiveness. The EE component's particular focus was in the area of natural gas regulation.

Eighty-five percent of the construction work on the West Africa Gas Pipeline (WAGP) is currently completed, and natural gas is expected to be available in Ghana by December 2006. Fifteen percent of that gas will be available for uses other than power generation, such as industrial, commercial, and residential purposes. This important new source of energy for industries has the potential to significantly reduce the cost of doing business in Ghana.

To ensure that Ghana is ready to take advantage of natural gas when it becomes available through the WAGP in December 2006, TIPCEE took the lead in supporting the Ministry of Energy (MOE), the Energy Commission (EC), the Public Utilities Regulatory Commission (PURC), and other stakeholders to develop a roadmap of required activities in order to develop the secondary market for natural gas, and subsequently to develop an appropriate policy and regulatory framework for the secondary market. TIPCEE supported two stakeholders' forums held in October 2005 and January 2006 to discuss the roadmap and draft regulations respectively. The policy and regulatory framework have since been revised by the Ministry and The Energy Commission in line with Government's objectives. TIPCEE has worked closely with the Ministry and Energy Commission towards ensuring that the final versions of the policy framework and draft Regulations are reflective of best practice.

TIPCEE will continue to support the Government to finalize a policy and regulatory framework which will stand the test of time.

D.4 INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) SECTOR POLICY

Access to information, communications, and technology is critical for business productivity, growth, and sustainability. An efficient ICT sector facilitates production and trade in the global marketplace and leads to a reduction in costs for businesses relying on ICT-related services regardless of geographical location. A number of challenges currently work against efficient and reliable access to ICTs by the private sector. These include weaknesses in the policy and regulatory environment, inadequate private sector advocacy, and insufficient regulatory capacity.

Drafting Innovative Legislative Instruments

TIPCEE provided support for the review and finalization of three draft bills for submission to Parliament including the Telecoms Bill, the National Communications (Amendment) Bill, and the E-Legislation Bill. This support will include a review of the draft bills by local experts, a stakeholders' forum to review the draft bills, and a workshop for the Select Committee of Parliament on Communications on the proposed legislation. The enactment of these bills will result in an improved policy and regulatory environment and the provision of better and more efficient ICT services.

Building on previous World Bank support, a team of five local ICT experts (made up of ICT policy and regulatory specialists, communications lawyers, and ICT security experts) reviewed and finalized the draft National Telecommunications Bill, the draft Telecoms Bill, and the draft Electronic Transactions Bill. The draft bills deal with issues such as independence of the regulator, the National Communications Authority (NCA) and its openness and transparency in the exercise of its regulatory powers; the convergence of voice, data, and video technologies; increased competition in the industry; and universal access to ICT. The draft Telecoms Bill also seeks to operationalize the Ghana Investment Fund for Telecommunications (GIFTEL) to enable it to develop rural ICT infrastructure and extend ICT access to all parts of the country.

TIPCEE supported a series of fora in January and June 2006 for stakeholder feedback and further inputs. Following these fora the experts finalized the draft bills and submitted them formally to the Ministry for final drafting by the Attorney General's Office. The bills are expected to be submitted for Cabinet consideration and thereafter laid in Parliament before the end of the year.

Building Advocacy Skills in Internet Service Providers

To facilitate the resolution of challenges facing the ICT industry, under the Last Mile Initiative, TIPCEE is expanding its work with the Ghana Internet Service Providers Association (GISPA) on developing advocacy skills and bringing together the GOG and private sector to expand access to new ICT web-based opportunities. After promoting a series of dialogue sessions with the Ministry of Communications, the National Communications Authority, the Select Committee of Parliament on Communications, and Ghana Telecom, a final work plan was drafted wherein TIPCEE will support development of position papers and advocacy skills training sessions for GISPA members.

SECTION IV. PROJECT SERVICES

A. Project Management and Financial Administration

The third component of TIPCEE, Project Services, has worked closely with the other two components of the project to achieve targets in this reporting period. Notable areas of support include procurement, travel and logistics, contracting and financial management.

A CAF manager was hired in June 2006 and has since been undergoing intense training from the Senior Operations Manager, whose work with TIPCEE ended September 30, 2006. An office manager, also hired in June 2006, has moved on to an international job. The position will be filled by November 2006.

The operations and accounting team continue to ensure that all USAID and Chemonics' policies are followed and all auditable files are kept according to Chemonics' policies. New procedures are continuously being developed to improve efficiency and support for TIPCEE activities. During the year modifications to procedures included travel advance request and reporting, leave requests, inventory recordkeeping, and organizing events.

The Project Services team continues to work directly with the Chief of Party to ensure that all contractually required reports are prepared properly and submitted to USAID on time. Financial systems continue to be in compliance with USAID and Chemonics' home office accounting procedures and will undergo a corporate mid-term audit in January 2007.

B. Competitiveness Activities Fund

The Competitive Activities Fund (CAF) is designed to provide a leverage of resources for strategic interventions with clients and partners. Following the completion of the manual and the appointment of a Manager, the CAF provided the needed support in undertaking new ventures and sharing risks associated with innovation in the horticultural industry, in line with TIPCEE's objectives. The CAF is structured to provide flexibility in dealing with clients, including NGOs, private business partners and farmer groups, as well as governmental agencies. The CAF manual provides technical details of the policies and procedures involved in dealing with different organizations. Funding is identified either in the course of implementation of the core project activities or through responses to the publication of the Annual Program Statement (APS) in the national dailies, and seeks to contribute to achieving the project objective of increased competitiveness of the Ghanaian private sector. Sixty-one concept papers were received during the period in response to the APS.

Over the past year, the CAF has used three of its four mechanisms outlined in the manual, Memoranda of Understanding, Subcontracts and Fixed Amount Reimbursable Agreements (FARAs) to provide support to project activities. TIPCEE has signed 60 Memoranda of Understanding, 20 Subcontracts and 6 FARAs to date. Complete lists of these agreements are attached as Annex C, D and E. These activities are all linked to the supply chain mechanism of the EBD component or to the interventions of the policy (EE) team in improving an enabling environment in the export business sector, and include the following:

Export Business Development	
Smallholder	Mapping of smallholder supply base for pineapple juice plant to maximize potential sourcing volumes and create fair payment structures
	Training in FairTrade and EurepGAP certification
	Diversification pilots for okra, baby corn and golden papaya
	Implementation of a EurepGAP Option 2 certification pilot
	Conversion of smallholder pineapple production to MD2 program
	Crop Diversification and Irrigation Technology Pilots and Smallholder Golden Papaya Mini Irrigation/Intensification scheme
Nucleus Firm	Pilot sea shipment of mango and papayas to European Market
	Crop diversification pilot for baby corn
	Quality upgrades to meet international standards
	Organic inspection to obtain certification
	Refurbishment of John Lawrence packhouse and pre-cooling platform for industry use
	Upgrade quality of Ghanaian produce to meet international standards
	Financial management and control systems improvements underway at Athena and Bomarts farms
Industry	Industry training on Geographic Information Systems (GIS)
	Industry debrief of Fruit Logistica
	Appropriation of Norms and Standards for horticultural commodities
	Mango industry training in farm management, post-harvest handling and good agronomic practices
	Mango industry training in farm management, post-harvest handling and good agronomic practices
	GIS Mapping of mango, papaya, vegetable and pineapple farms
	Development of mango spray car for mango farmers in Yilo and Dangbe West districts
	Barcoding and traceability system training workshop for SPEG members

	Mapping of cashew farms in production districts to enhance data management on production and defining grades and standards for the cashew industry
	Development of norms and standards for Griffonia and Voacanga to ensure the production, collection and export of high quality Griffonia and Voacanga resulting in increased incomes for the exporters and the rural poor engaged in the collection of these plants.
Market	Support for Ghana booth at Fruit Logistica
	Support to pineapple marketing agreement with South African buyer
	Ghana Mango Week 2006
Enabling Environment	
Labour	Training for NLC in Washington, DC
	Developing a communication strategy for the National Labour Commission
Energy	Drafting of natural gas rate model, economic model and regulations for secondary natural gas market
ICT	Facilitated public-private dialog events on the following draft Bills: Electronic Transactions Bill, 2006; National Information Technology Agency Bill, 2006; Telecommunications Bill; and the National Communications Authority Bill
Finance	Design of a Monitoring & Evaluation system for FINSSP
	Undertaking a baseline survey to establish the level of financial literacy among urban adults
	Undertaking a baseline survey to establish the level of financial literacy among urban adults
Other	Design legal, management, ownership and financial framework for Public-Private Partnership for Management of Tema Shed 9

During the next reporting period, the CAF will:

- Design and construct the first phase of a fruit bulking facility to consolidate the production, sorting, quality management and export of mangoes in the Yilo Krobo/Dangbe West Districts.
- Develop software to facilitate communication from field to packhouse and packhouse to port to facilitate logistics and fully integrate smallholder outgrowers to export services.
- Install irrigation equipment and support smallholder papaya farmers with improved seed varieties in transition to the introduction of the Golden Papaya.
- Launch a drip irrigation scheme to vegetable farmers in northern Ghana, and work with SARI, IDA and ICOUR to provide technical assistance to enhance production of vegetables for the export market.
- Adopt templates originating from the financial management and control study at Bomarts and Athena Farms for the use of the horticultural industry.

- Collaborate with the Ghana Standards Board to approve norms and standards for some botanical export plants and other export market products.
- Develop software and hardware to facilitate barcoding and traceability in the horticultural industry.
- Undertake a pineapple inspection program to ensure conformity with international standards and promote exports.
- Offer training and build capacities of farmer groups, and assist them in identifying ready markets for their produce.
- Establish demonstration plots for a variety of commodities.

C. Monitoring and Evaluation

During Year 2, TIPCEE's Monitoring and Evaluation (M&E) unit continued to effectively implement the Performance Monitoring Plan (PMP) approved by USAID. The M&E system is designed to capture all data, track performance results, assess impact of the project and report accurately to TIPCEE staff and USAID. Summary of results against targets by indicator are presented in Annex F.

C.1 UPDATE AND MANAGE M&E DATABASES

A number of databases have been designed in spreadsheets to track, update, maintain and analyze indicator performance data and project results from TIPCEE clients and other industry activities. Over the period, M&E specialists collated and validated all data collected, and analyzed them to provide feedback to staff and report data on indicators in semi-annual reports to USAID. Efforts were made to establish and document baselines for new TIPCEE clients and partners during the six months period. M&E Specialists have also been integrated into EBD and EE activities to track activity timelines, outputs, outcomes and document milestones and benchmarks using data capture sheets.

Communication is a key activity for TIPCEE and M&E is an integral part of this activity. To facilitate communication among all TIPCEE staff, the M&E team provided quarterly M&E updates to TIPCEE component leaders and technical staff. The updates included progress towards achieving set targets, variances, data collection problems and reasons for underperformance or over-achievements.

C.2 COMPLIANCE WITH INITIAL ENVIRONMENTAL EXAMINATION (IEE) & PERSUAP

During the reporting period, TIPCEE M&E, together with the TIPCEE technical staff, implemented the mitigation and monitoring plan in the Ghana SO 6 amended Initial Environment Examination (IEE) report. Pesticide use and application were monitored in field sites to ensure that farmers were not using unapproved pesticides and also misapplying them in their production practices. Environmental screening forms have been designed and are used by TIPCEE technical staff to screen activities that have not been covered in the IEE but have the potential to impact negatively on the environment.

C.3 REPORTING & SUPPORT TO USAID PARTNERS

The M&E team supported USAID/Ghana's M&E needs by providing input to the Mission's SO 6, and associated Intermediate results (IR) indicators. Data captured by the M&E Specialists also provide information to the USAID Initiative to End Hunger in Africa (IEHA), Online Presidential Initiatives Network (OPIN) and performance indicators for USAID/Ghana. The M&E team also provided assistance and facilitated the first Data Quality Assessment by USAID/Ghana Mission. The assessment team visited six sites in the Volta, Eastern and Brong Ahafo Regions.

C.4 PERFORMANCE MONITORING, TRAINING & QUALITY ASSURANCE

TIPCEE M&E conducted several routine monitoring visits to TIPCEE clients (assisted enterprises, smallholder groups and sentinel sites) to verify data and assist partners in proper recordkeeping and reporting. Monitoring visits to project sites were done to check implementation of field activities including okra trials, MD2 nursery sites, and GIS mapping exercises. M&E Specialists have organized training sessions for selected sentinel farmers participating in the okra diversification trials. Support was provided to TIPCEE technical staff with quality control and assurance on data elements and surveys carried out during the reporting period to ensure that data were captured in a format consistent with TIPCEE and USAID requirements.

C.5 GIS MAPPING OF FARMS

M&E Specialists have been involved in the use of GIS technology to provide spatial information and establish a comprehensive database on pineapple, cashew, papaya, vegetables and mango production. M&E staff is currently managing all databases resulting from the mapping of producer farms and conducting training in the use of the GPS handsets, supervising the mapping of farms by field enumerators, generating farm maps and creating attribute data on farms mapped.

D. Environmental Compliance Progress Report

TIPCEE has integrated environmental concerns into activities carried out in Year 2, in accordance with the code of Federal Regulations, Part 216, dated October 9, 1980 (cited as 22 CFR 216); and ADS 2004. The report contains information on monitoring and mitigation measures implemented as per SO 6 Initial Environmental Examination (IEE) and PERSUAP, and was approved in February 2006. In addition, achievements and challenges faced during the period are outlined below.

D.1 MITIGATION & MONITORING

TIPCEE committed itself since project inception to monitor environmental compliance in accordance with recommended threshold decisions for a Negative Determination with Conditions in the IEE document. The table below summarizes progress on mitigation measures outlined in the IEE.

Mitigation	Monitoring
<i>Technical assistance and training in fertilizer management shall be in accordance with best practices.</i>	<i>All TICPEE manuals include fertilizer management best practices.</i>
<p><i>Support for the use of irrigation shall be undertaken in accordance with best practices. For guidance in reviewing, mitigating, and monitoring environmental impacts regarding irrigation see:</i> www.encapafrika.org/SmallScaleGuidelines.htm</p>	<p><i>TIPCEE is currently introducing the Golden Papaya cultivar under pilot irrigation to 10 outgrowers of a nucleus papaya firm and other individual producers. The irrigation trials are being done in accordance with best practices using guidance from</i> www.encapafrika.org/SmallScaleGuidelines.htm.</p> <p><i>a) Report in Semi-Annual Reports on design of best practices; dissemination of best practices in manuals, at demonstration sites, in training, and during other technical assistance activities involving improved production practices.</i> <i>b) Report in Semi-Annual Reports on implementation of best practices in irrigation use/management.</i></p>
<i>Support for improved agricultural production practices shall include dissemination of information on best practices in natural resources management (NRM) and biodiversity conservation.</i>	<i>Certification of farms under EurepGAP still remains an important monitoring and mitigation measure in the use of environmentally sound practices. EBD team is assisting smallholder mango producers to obtain EurepGAP group certification under the Option 2 program. Initial training on critical control points has been conducted for selected members of Yilo Krobo, Dangbe West and Kintampo districts. Farmers received training on EurepGAP checklist and compliance criteria as well as proper record keeping.</i>
<p><i>Assistance for improved agricultural production shall discourage agricultural expansion into areas critical for biodiversity conservation and those that provide important ecosystem functions:</i></p> <ul style="list-style-type: none"> <i>• Work closely with GSSP to gather relevant data to analyze agricultural encroachment;</i> <i>• Use mapping activity to gather data on agricultural encroachment; and</i> <i>• Where data indicate, implement actions to minimize encroachment.</i> 	<p><i>Collaborated with GEPA on environmental monitoring and land cover change. Preliminary meetings held on the use of satellite images and area photographs for monitoring land cover change. Issues regarding data sharing protocols remain to be resolved.</i></p> <p><i>Held discussions with GSSP on the use of GIS mapping technology to map borders of government-protected land and gather data.</i></p> <p><i>Members of producer groups and associations are continuously educated and discouraged from encroaching on protected lands by technical staff.</i></p>

E. Communications

Communications is an integral component of Chemonics' project management, and effective communications considers both internal and external needs. Internal communications involve individuals who have an operational interest in the project. This includes, among others, the TIPCEE field team, USAID/Ghana,

USAID/Washington, Chemonics' home office, and subcontractors. External communications are directed at stakeholders who have an informational interest in the work carried out, including exporters, buyers, GOG MDAs, associations, BDS providers, smallholder farmers, and others for whom communications is both a means for educating and informing as well as a vehicle for doing business.

Internal communication: TIPCEE continues to update project staff on TIPCEE activities using its brown bag lunch sessions on selected technical topics by in-house and visiting experts to encourage cross-component synergies and provide staff with project activity updates. A recent addition to our internal communications strategy is a 'Weekly Update' that goes out by email the first day of the week to all TIPCEE staff. The Update provides information on activities happening during the week and the past week, as well as providing information on staff travel, leave and consultants' arrivals. The different components of the project meet regularly to discuss matters relating to their specific areas of work, and the Chief of Party participates in these meetings.

External communication: TIPCEE's external communications involves two main audiences: 1) communications with USAID, Government of Ghana and other partners regarding project activities and status, and 2) communications with the horticulture industry to supply relevant market intelligence information.

Through semi-annual reports, USAID is provided with success stories and updates on the progress of the project. TIPCEE will continue to document project successes using the success story guidance provided by USAID with the aim of submitting stories to the USAID "Telling Our Story" initiative. To keep partners and other donors aware of and integrated with all activities, the project widely distributes its semi-annual reports and work plans, and presents the annual work plans each year at a public forum with partner organizations. TIPCEE has established mechanisms to ensure regular information exchanges with USAID, donors and Government of Ghana officials. We work closely with the USAID SO 6 team, seeking their participation in workshops, forums and events.

The Enabling Environment team collaborates closely with the Ministries in each of the target policy areas, and keeps USAID and pertinent Ministries abreast of progress and scheduled activities through regular meetings. Before each annual work planning session, stakeholders are engaged to provide input, avoid duplication of efforts and ensure integration of activities with other development programs.

TIPCEE subscribes to publications, both magazines and online publications, which serve as a source of market information to the horticultural industry. TIPCEE's "Weekly Market Intelligence Update" which was previously circulated by email, has been now been incorporated into a 'Ghana Fresh Produce' website housed at www.ghanafreshproduce.org. The website is accessible to the horticultural industry, and will provide the needed market intelligence to increase competitiveness of the Ghanaian exporter. The Market Intelligence Report, a quarterly journal containing market statistical data, is a joint project with several GOG agencies – including Ghana Investment promotion Council (GIPC), Ghana Export Promotion Council (GEPC), and MOFA – and was launched at an event at which the major players in the horticultural industry as well as USAID officials were present.

During the coming year, external communications will be further streamlined with implementation of a communications strategy and new templates for technical manuals, press releases, and newsletters.

SECTION V. PROJECT FINANCIAL STATUS

The following table updates TIPCEE's expenditures through September 30, 2006.

Contract Amount	Obligated Amount	Actual Expenditure to September 30, 2006	Balance	Estimated Completion Date
\$30,080,897	\$20,200,000	\$10,015,315	\$20,065,582	November 30, 2009

ANNEX A. PROJECT STRATEGY

The Trade and Investment Program for a Competitive Export Economy (TIPCEE) seeks to achieve exponential growth in sales of agricultural exports over the five-year life of the project by increasing the competitiveness of Ghana's private sector in international and regional markets. Working with policy makers and private sector stakeholders, the project aims to improve the legal and regulatory environment for private sector operation and investment and build private sector capacity at the individual farm and firm level, and at the same time, develop cluster competitiveness within the private sector.

To address the constraints to growth, the project is divided into two components. The Export Business Development (EBD) component addresses private sector constraints by increasing the performance, value, and innovation of Ghana's export industries through strengthening selected commodity supply chains from farm to market. The Enabling Environment (EE) component addresses public sector constraints by linking government officials, policy research institutes, business associations and other private sector groups to improve key policies and regulations that currently constrain business development in Ghana. By combining EBD and EE under a single project umbrella, the activities of each component can inform the other. For example, activities in the areas of revising pesticide regulations, arranging public-private partnership agreements for cold store facilities, and developing commodity-specific norms and standards involve EBD and EE teams working jointly.

EXPORT BUSINESS DEVELOPMENT APPROACH

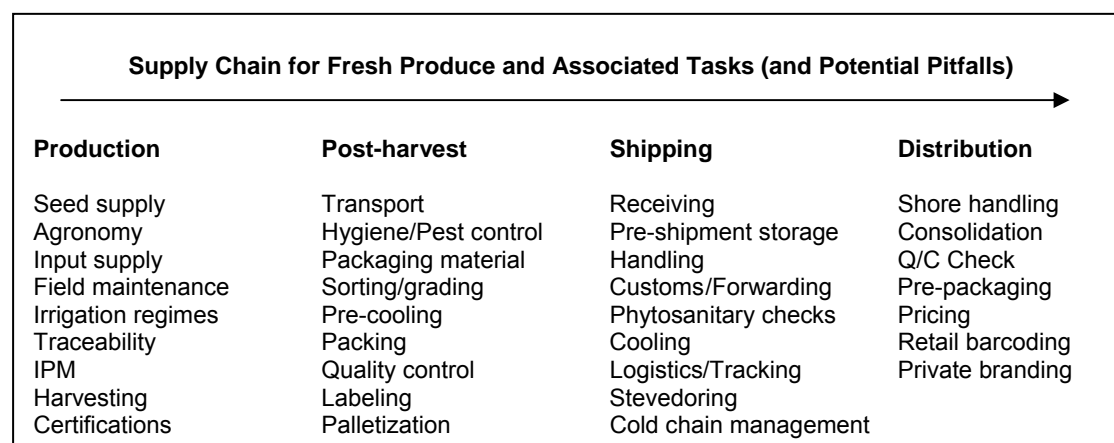
Market demand drives the approach of the EBD component – *produce what you can sell, not sell what you produce*. With our private sector partners, TIPCEE identifies and develops opportunities and addresses challenges across the value chains in selected commodities with growing markets. The EBD team designs and implements activities focused on the supply chains' four major levels: smallholder farmer, nucleus export firm, industry and market linkages.

Starting with market opportunities, the EBD team bolsters the strengths and shores up the weaknesses in commodity-specific supply chains. The streamlining and integration of supply chains in target markets requires producers and exporters to attain high performance standards in terms of product consistency, tight planning and logistics, quality assurance, food safety and traceability. To this end, TIPCEE is introducing a new set of skills involving enhanced training systems, ICT-based traceability and production planning, tight financial management systems and an ability to keep abreast of market requirements in terms of product variety, packaging and processing. This update in management skills is especially critical to keep smallholder farmers in the loop as their size and dispersion pose special challenges for monitoring, financing and general information management. The transfer of new skills will strongly leverage Ghana's many comparative advantages — including climate, dual growing seasons, port facilities, and a growing cadre of exporters — and will portray Ghana as an attractive alternative to Central and South America.

Culture of Innovation

In addition to catching up with current industry practices, TIPCEE also aims, through these activities, to develop a culture of innovation within the industry cluster. This means that the introduction of new concepts and technology must be carried out through the industry associations and institutional support agencies and supply chain players. The objective is not only the sustainability of the new practices, but in the end the sustainability of the innovation process itself – to recognize when market and industry changes are coming and to adapt to meet them.

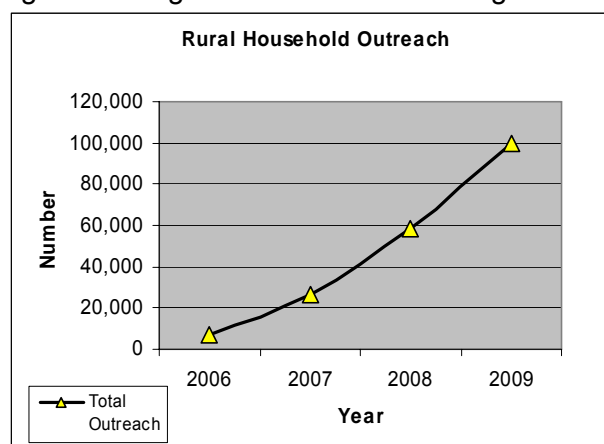
EBD activities seek to streamline and improve the multiple steps in the supply chain as illustrated in the diagram below.



Project Targets

The EBD component's goal is to increase export sales volume and value while facilitating the inclusion of rural households in the development of commercially focused value chains. The management of this dual objective requires analyzing all activities in terms of their impact on farmer outreach and volume/value of sales. The graphs presented here illustrate the expected life of project levels of outreach and volume/value of commercial activities which will result from current and anticipated future activities.

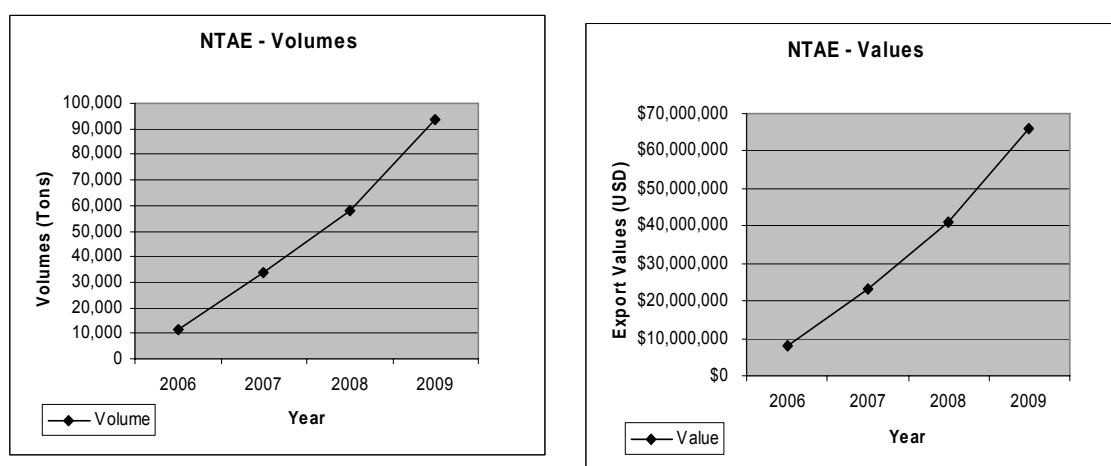
Current activities are expected to translate into total rural household outreach of 45,000 by the end of the project. Most of these households are in high poverty areas — in the Northern, Upper East and Brong Ahafo Regions — that focus on vegetable crops and cashew. In the case of the more established export crops such as pineapple, papaya and eventually mangoes, the project's current activities use the existing production base; however, the number of farmers involved in marketing these fruits is expected to increase with the inclusion of non-traditional growing areas in Central, Ashanti and Brong Ahafo Regions.



To broaden the farmer base, the EBD component is redefining its scope of intervention to include commercial production of food staples for the regional and domestic markets. Products such as citrus (fresh and processed), medicinal herbs, tomato (fresh and processed), onion, and industrial maize would capture an additional 55,000 rural households currently involved in these informal, but potentially vibrant, supply chains. For each of these products, EBD staff and potential partners are considering activities to improve supply chain flows and foster enhanced market integration. Emphasis should be on access to improved, market-compatible seed varieties; improved field productivity; introduction of safe food production practices; and value-enhancing post-harvest and logistics systems.

Regarding export sales volumes, TIPCEE's current approach will contribute substantially to developing and consolidating supply chain linkages, translating into solid growth in the sectors initially targeted by the project. As detailed below, the horticulture industry will benefit greatly from activities related to smallholder access to improved planting materials and practices, introduction of stringent quality norms, and full GIS- and ICT-enhanced traceability technology – all delivering a proactive message to buyers.

Current market trends and the observed industry response to the challenges indicate that life of project (LOP) expectations for the targeted export crops could significantly exceed targets. The graphs below are based on the expected cumulative impact of initiatives launched in the first 18 months. They do not include the potential increase in sales from the food staples.

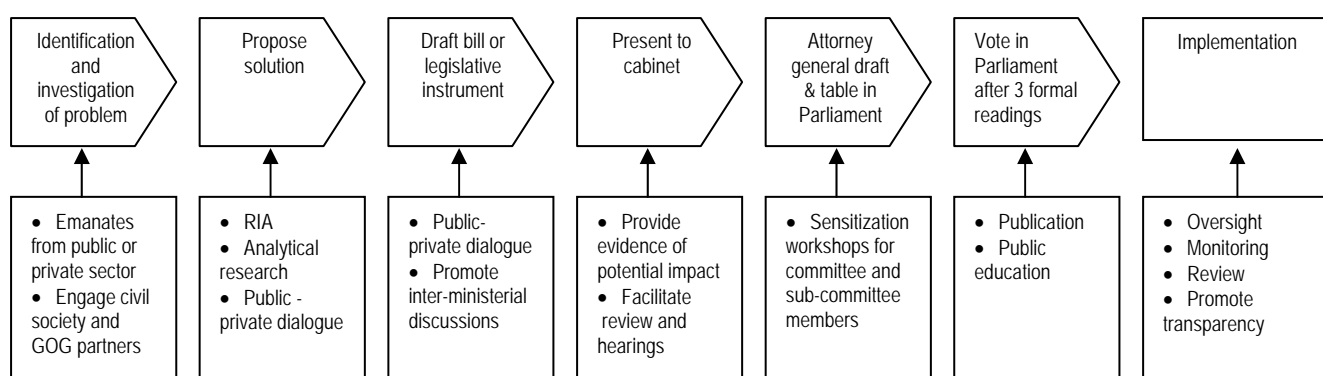


APPROACH TO IMPROVING THE ENABLING ENVIRONMENT

The EE component is focused primarily on three key sectors that are most critical to achieving the TIPCEE goals and objectives: financial markets; trade and other private sector policies; and agriculture. In addition, specific projects have focused on macroeconomic, monetary and fiscal policy, and the energy, ICT, and labour sectors. The attention to these areas is based on the overriding need to achieve and sustain macroeconomic stability through monetary and fiscal policy, improve the efficiency of factor markets – particularly financial, agricultural and labour markets – and improve the regulatory frameworks for key infrastructure sectors such as energy and ICT. Technical assistance, training, and public-private dialogues are the principal tools used to achieve results.

The diagram below illustrates Ghana's policy development process. In each activity TIPCEE supports the process early in response to an identified need: mid-term, to provide analysis to decision makers or facilitate a public-private dialogue, or later, to sensitize Parliamentarians to the potential impact of the proposed legislation or regulatory change. In all cases, EE advisors play a facilitator or advisory role: all regulatory content and decisions are established by the decision makers themselves.

Policy Development Process



Supporting actions by TIPCEE and others

In some cases, the EE component is charged with building the capacity of selected policy analysis units with the Government. While capacity building is integrated into all activities with counterpart agencies using local consultants in tandem with international experts, embedded experts in the Bank of Ghana and Ministry of Finance and Economic Planning also build capacity of their respective units on a day-to-day basis.

The strategy of the EE component continues to be informed by the GPRS II, GOG sector-specific strategies, our work with GOG counterparts, interaction with other donor projects, and the Export Business Development component. Additionally, sector-specific expert panels convene annually to evaluate our work-to-date and inform the next year's strategy.

ANNEX B. EBD SUMMARY BY COMMODITY

In the current reporting period, the scope of commodities to be covered by TIPCEE was expanded considerably. The initial group, high-value export crops targeting the international market – pineapple, mango, papaya, Asian vegetables and cashews – has been supplemented by crops which target regional and/or domestic markets. These crops – citrus, tomato, onions and maize – are expected to carry potential commercial opportunities through the establishment and reinforcement of supply linkages between a wide smallholder farmer base and clearly identified downstream buyers. In addition to this new group, two other sectors were added, namely medicinal plants – Voacanga and Griffonia – which provide seasonal revenues to a wide rural population, and banana, which has the potential to become a major employer in rural areas. TIPCEE activities are embedded in the supply chains it supports and aims to adapt its program to the specific conditions created by market forces and specific supply chain requirements.

The following is a brief overview of the current state of the industry for each commodity and the project's activities that contribute to the resolution of constraints hindering growth and investment.

Pineapple: The fresh pineapple industry is gradually achieving a successful conversion to the MD2 cultivar. Although volumes in the third quarter were still below past performances, sizeable plantings will bear fruit for the 2006 Christmas season and should propel the industry back to its former shipping levels and grow rapidly from there. Since attending the Fruit Logistica fair in Berlin in February 2006, the sector has witnessed intense commercial activity, with representatives from leading international distributors such as Fyffes and Chiquita, among others, discussing long-term partnerships with industry leaders. It is estimated that current unmet orders for Ghanaian MD2 will reach a level of 40,000 tons annually, double the current supply. This market pull will be supported by the expected completion of the Shed 9 cold store terminal at Tema port expected in January 2007 and the roll-out of the MCA program, which will provide much needed infrastructure investment in roads, irrigation and post-harvest installations.

During the current reporting period, TIPCEE has worked closely with Sea-Freight Pineapple Exporters of Ghana (SPEG) to implement the pineapple norms and standards inspection program and to prepare for the implementation of pallet barcoding systems which are compatible with modern logistics IT software. Both programs have full industry buy-in and will prove critical in accessing major supply contracts as seamless consolidation of the production of several farms will then become feasible. On the smallholder front, the priority remains the development of an export class supply base, capable of full integration with downstream networks. The linchpin of this program is the MOFA/HEII smallholder MD2 multiplication program, to which TIPCEE provides support at the group development level. At the time of reporting, planted nurseries should provide more than 80 farmer groups with the planting material to supply more than 20,000 tons annually. AgSSIP's extension will ensure full completion of the program's objectives: 120 farmer groups and an annual smallholder supply base of 35,000 tons, with a farm gate value of U.S. \$6 million, by the end of 2009. To complement the conversion program, a pilot to develop a EurepGAP Option 2 framework adapted to the Ghanaian pineapple industry was launched during this reporting period. This program, carried out in partnership with EurepGAP, involves the collaboration of HEII/MOFA, GTZ/MOAP and TIPCEE. EurepGAP chairman Nigel Garbutt attended the program's launch in May, and the program was presented at the 7th annual EurepGAP conference in Prague in

September 2006. The ensuing field-tested quality assurance framework should facilitate the certification of the 120 MD2 small farmer groups, keeping the door open to the export market to more than 5,000 rural households.

The growing interest in pineapple juice, particularly single strength but also concentrate and organic, has re-kindled interest in Smooth Cayenne from processors seeking to develop export markets both internationally (Europe, U.S.) and regionally (Nigeria). Over the current reporting period, TIPCEE has been collaborating with a leading processor to address supply base issues. A proposal to develop small farmer pineapple production techniques for processing has been prepared and will be discussed with implementation partners from the private and public sector.

Mango: Stimulated by the Mango Week event held in March, the Ghanaian mango industry has been the focus of much attention, with a clear interest from the market to develop a supply line from the country. It is clear that Ghana, with its major season pegged to the Ivorian one, and a minor season competing with distant origins such as Peru, presents an attractive alternative. However, several technical challenges remain, as the crop is relatively new (40% of planted acreage in the South and 90% of the northern farms have yet to fruit). It is overly concentrated on the Keitt cultivar (more than 85% of the southern belt) and the country's farmers have yet to develop a full understanding of crop husbandry. In the current reporting period, most of the southern orchard did not flower for the major season, forcing producers to postpone export plans. The cause for this exceptional situation is attributed to climatic causes (no clear dry season break) and cropping practices. TIPCEE nevertheless continued with an intensive training program for producers and local service providers, covering techniques ranging from tree husbandry to integrated pest management. TIPCEE is also working with the leading farmer associations to bring them to EurepGAP certification level and design fruit bulking facilities which will help them develop the management skills required for effective group marketing. Concurrently, the mango GIS database is being reviewed and modules are being developed to ensure ongoing updates and make it user-friendly to farmers and public or private extension agents.

Papaya: Until recently the industry was on the decline due to the lack of an adequate supply of the Golden variety and the investments required in pre-cooling to successfully transition to sea freight. Ghana's papaya industry is starting to attract more attention from buyers, particularly since the Fruit Logistica fair and recent challenges for market leader Brazil to provide a consistent supply. However the nucleus base on which small farmers can rely is currently very limited – with only four exporting firms accounting for most of the country's exports, and only one interested in developing linkages with smallholders. This is understandable given the requirement for EurepGAP certification and the very loosely organized smallholder base with minimal knowledge of best practices. Over the reporting period, TIPCEE supported the re-building of the industry by teaming with an existing exporter and his surrounding outgrowers to introduce the Golden variety as well as improved nursery, crop husbandry, drip irrigation and post-harvest techniques. The initiative has captured the industry's interest and several other firms otherwise involved in vegetable, mango or pineapple production, have linked to TIPCEE to access the improved seedstock as well as the associated field level support. In parallel, work has been carried out to develop a norms and standards poster which will provide the tools for the development of quality assurance programs once the first plantings bear fruit over the coming reporting period.

Vegetables: In recent years, the Ghanaian export vegetable industry has been coasting along, capturing a sizeable portion of the large ethnic vegetable niche in the UK due to its clear comparative advantage in terms of airfreight costs versus East

African origins. Despite this commercial success, productivity remains an issue and the limited skill base and unavailability of high quality seed stock hinders yields, sometimes to the point of making certain crops not profitable despite the freight cost advantage. One such product is okra, a major staple on the UK Asian specialty market for which Ghana has never captured substantial market share due to the prevalent seed stock's high vulnerability to various virus strains. Over the current reporting period, TIPCEE debriefed the results of the commercial field testing of four Indian virus-resistant hybrids, developed by leading seed companies. The positive results, both in terms of market acceptance and field productivity, created strong interest in the product and a swift expansion is expected. TIPCEE will follow up on this success by working with industry associations and farmer groups to develop seed procurement skills, the introduction of Integrated Pest Management specific to the export crops, and other agronomic best practices, including drip irrigation.

TIPCEE will also work with the associations to develop their capacity to define research priorities and, over time, establish leadership in fixing the research agenda for their industry in collaboration with MOFA. Late in the current reporting period a looming threat to the industry materialized, with the seizure of thrips-infested Ghana produce by British authorities and pesticide residue levels in excess of accepted thresholds (okra however was not identified). PPRSD is preparing an action plan in response to this crisis, involving additional field training of small farmers involved in the industry. Finally, TIPCEE will address the greater concentration of export vegetables in the South by carrying out trials in northern Ghana, using drip systems adapted to smallholder farmer capacities. Assistance with diversification to baby corn, chilies, and other varieties is also ongoing. This will enable farmers nationwide to target the optimal production period, as dictated by climactic conditions, and foster integration of northern farmers into high-value vegetable farming.

Cashew: Despite a rising world demand for cashew kernels, the West African cashew supply base is still overwhelmingly oriented towards supplying the Indian processing industry with raw nuts. However, with the recent creation of the African Cashew Alliance, momentum is building to promote cashew *processing* in Africa. In the case of Ghana, the cashew output is still dwarfed by that of Cote d'Ivoire on a scale of 10 to 1. Nevertheless, the production base could grow significantly through the support of such programs as the Cashew Development Project (CDP) being managed by MOFA, as well as a clear interest in the crop on the part of professional traders active throughout the subregion. TIPCEE's support is focused on improving sourcing quality and efficiency. Its work over the current reporting period has involved the development of practical standards which will be disseminated to the whole supply chain and its service providers, starting with farmers. It has also resulted in a collaborative agreement with the CDP to begin mapping and surveying existing cashew farms in order to provide accurate monitoring of the supply base. Ultimately, this tool will give producers high visibility to trading partners, most critically to potential investors in processing, where a clear assessment of available supply will make or break a project. It will also provide a useful monitoring tool for programs aiming at enhancing field productivity over the entirety of Ghana's plant stock.

Medicinal plants: In Ghana, the domestic market for herbal medicine is estimated at over U.S. \$8 million while exports for medicinal plants was valued at U.S. \$3.5 million in 2004. The industry employs over 10,000 farmers and collectors and affects more than 200 communities in Ghana. Voacanga and Griffonia are leading medicinal plant exports from Ghana. Though exports of these plants began decades ago, nearly all plant materials are wild crafted. There is no regulation to prevent exploitation of these natural resources and no bodies to monitor exporters' quality. In the current reporting period, TIPCEE is providing support to ASNAPP to define and

promote norms and standards for both products with the objective of securing market share and improving financial returns to the farmers.

Banana: The recent WTO rulings concerning the European Banana quota and tariff system, which maintain preferential status for African origins such as Ghana, have generated interest on the part of the large multinationals in increasing their sourcing from the continent, which is currently marginal. For Ghana, the development of a banana industry will in itself generate important impact in terms of rural employment since a production base of 5000 hectares represents the creation of 15,000 direct jobs. It will also generate a critical mass which should create conditions for dedicated reefer ships providing cost-effective logistics, contributing to the competitiveness of other existing fresh produce exports such as pineapple, mango and papaya, as well as for other diversification products such as avocado and melons. The development of the banana industry in Ghana is being spearheaded by a 1000+ ha industrial farm currently operated by Golden Exotics Limited, a subsidiary of Groupe Compagnie Fruitière, a Dole affiliate. Following Fruit Logistica 2006, Chiquita Brands contacted TIPCEE to facilitate contacts with existing entrepreneurs in order to develop partnership agreements aimed at developing capacity, in the near term, comparable or superior to the Dole investment, but split among a series of locally-owned individual farms. Over the reporting period, TIPCEE has collaborated with MOTIPSI to facilitate the development of partnerships between Chiquita and leading pineapple producers and exporters, as well as liaising with financial institutions which could contribute to the projected investments.

Citrus: Citrus is one of the most widely traded international fruit commodities, in both fresh and processed form. For agronomic reasons, Ghana's production doesn't achieve the external coloring requirements of the international market, however it has the potential to position itself on the juice (concentrate and single strength) and ingredients markets (peels and essential oils). A sizeable part of the production is also exported fresh on a regional scale to neighboring countries where quality requirements are less stringent. A few Ghanaian processing firms have tapped the country's vast orchards and are successfully exporting single-strength orange juice as well as citrus peels, albeit in modest volumes. Several relatively new investments in processing capacity will soon be launched. One of these projects will provide a significant outlet to the thousands of small farmers involved in growing citrus. During the reporting period TIPCEE added citrus to its commodity portfolio and has teamed up with current initiatives of the MOAP/GTZ, MOFA and ADRA to support initiatives aimed at improving the competitiveness of Ghana's citrus farmers. Planned activities for the forthcoming year will address issues related to mainstreaming product norms and standards relative to processing, the development of a geographical database of citrus orchards to be used as a monitoring tool for technical support to the industry and the establishment of an industry development plan which will orient future investments of such programs as MCA and other initiatives envisioned by government. These will be carried out in full collaboration with established processors, farmer associations, extension services, government agencies as well as the cited development partners.

Tomato: Fresh tomato and concentrated tomato paste are staples of the West African diet and a major outlet for smallholders involved in commercial farming. The market is very competitive and Ghanaian farmers and processors face strong competition, both at the regional level, for the supply of fresh tomatoes, and at the international level for the processed product. Tomato is part of the new set of commodities added to TIPCEE's program in the current reporting year. Activities including irrigation and diversification trials have been programmed in collaboration with an existing processor to improve productivity and quality in order to achieve raw

material costs consistent with world costs, as well as generate acceptable revenues for farmers. Field studies have been conducted in collaboration with IFPRI and Ghana Agricultural Producers and Traders Organization (GAPTO), under the PBS program to better focus subsequent interventions which will target the wide farmer base involved in tomato production for the fresh and processed market.

Onions: The regional market for onions is very competitive and the supply from Ghanaian farmers remains marginal compared to that of neighboring countries. The crop requires irrigation and is grown mainly in the northern part of the country, along rivers and on the few irrigation infrastructure sites built over the years by the GOG in that area. TIPCEE's support will aim at improving product quality as well as the marketing window accessible by local farmers. This will entail the introduction of drip irrigation techniques, a diversification of varieties and the introduction of best production and post-harvest practices, adapted to the context of smallholder farming. Over the reporting period, TIPCEE has worked with support agencies in the North and Upper East regions to design a set of 14 irrigation pilots which will include onions in their crop rotation. The equipment has been procured; installation, followed by training and diversification pilots, will begin in the coming year.

Maize: One of the most widely grown food crops across the country, maize also presents opportunities for commercial farming. Currently, the Ghanaian animal feed business and other industrial processing entities will turn to sourcing maize on the international market, citing issues of quality, cost competitiveness and effective logistics. For these reasons, TIPCEE decided to add maize to its commodity portfolio. In the current reporting period, TIPCEE put together a team of experienced professionals with a clear understanding of both small farmer issues and the performance requirements of the private processing sector. Activities envisioned and currently in the planning stage include demonstration sites, in collaboration with industry, of adapted seed sources to supply identified markets. They will also include activities aimed at improving quality through better post-harvest and field storage systems, as well as the streamlining of supply logistics to the processing units.

ANNEX C. MEMORANDA OF UNDERSTANDING

Memoranda of Understanding (MOU) are long-term instruments developed between TIPCEE and partner organizations to outline mutual support for the achievement of common goals. The MOU serves as the umbrella agreement between TIPCEE and an MOU partner, and usually lasts throughout the period of the project. Under this umbrella, each distinct technical activity has a Scope of Work which outlines the specific activity, the cost-risk assumed by each party, the timeline and responsibilities. If TIPCEE collaborates on multiple activities with the same MOU partner, each activity will be defined by a specific and separate SOW. The activity outlined in the SOW is completed within its effective period. The MOUs signed thus far are for activities under the Export Business Development component. MOUs for the Enabling Environment component will be between USAID and the appropriate Ministry, and will therefore follow a different format than the one outlined in the CAF manual.

Memoranda of Understanding and Scopes of Work as of September 30, 2006 appear below.

Number	Client	Objective
1	Tayco Agro	Increase the volume of fruit exported and process the export rejects for the local market.
	SOW	<i>Complete diagnostic study of the operations of Tayco Agro for possible expansion into fruit processing.</i>
2	Total Quality Investment Ltd (TQIL)	Increase exportable quantities of cashew kernels.
3	Dansak Farms	Increase exportable quantities of papaya over the next 5 years.
	SOW	<i>Implement a pilot sea shipment of papaya to Europe. TIPCEE will also undertake a diagnostic study of the company which will focus on issues relating to Dansak's operations, financing, critical success factors and constraints.</i>
	SOW	<i>Implement a crop diversification pilot for baby corn in order to establish the technical practices and subsequently export standards for the crop. Results of the pilot will be shared with industry.</i>
4	Athena Foods	Increase volumes of fruit juice and concentrates exported by an average of 20% per year over the next 5 years.
	SOW	<i>Undertake organic inspection of the client farms for certification compliance.</i>
	SOW	<i>Establish technical feasibility of installation of steam boilers which use organic waste as fuel.</i>
	SOW	<i>Implement a series of technological and factory improvements to upgrade the quality standards of the processing facilities to enable Athena supply Coca Cola Nigeria Ltd with pineapple concentrate for the production of a new fruit drink for sale in the sub-region.</i>
	SOW	<i>Implement a financial management and control system.</i>

	SOW	<i>Implement a Mapping Program using GIS and establish a smallholder fruit sourcing system</i>
5	Demehsco Farms	Increase exportable quantities of mangoes by 20% per year over the next 5 years.
6	Patmanuel Ventures Ltd (PVL)	Increase exportable quantities of pineapple from 1,000 MT to 1,728 MT over a 3-year period.
7	SOA Farms	Increase exportable quantities of pineapple from 200 MT to 648 MT over the next 3-year period. TIPCEE will work with SOA through provision of strategic management advice, support for implementation activities, access to financial and commercial linkages and operational assistance.
	SOW	<i>Assess the technical feasibility of establishing an irrigation system for production of MD2 pineapple.</i>
8	Vegetable Producers and Exporters Association of Ghana (VEPEAG)	Increase production base through provision of training in Good Agricultural Practices, GPS mapping of members' farms, on-farm demonstration, pilot irrigation schemes, nursery development and support for EurepGAP/traceability certification.
9	Farmapine	Increase volumes of fruit exported by an average of 30% per year over the next 5 years. TIPCEE will work with Farmapine through provision of strategic management advice, support for implementation activities, access to financial and commercial linkages and operational assistance.
10	Tongu Fruits	Increase annual production by 25% over the next 3 years by expanding its production base through an outgrower scheme and expand its MD2 tissue culture lab to meet demands from Ghana, East Africa, South Africa and Nigeria.
11	Bomarts	Increase exportable quantities of pineapple and mangoes by 30% per year over the next 5 years.
	SOW	<i>Support a pilot sea shipment of mangoes during the export season in June – July 2005.</i>
	SOW	<i>Train outgrowers for Fairtrade and EurepGAP certification and Good Agricultural Practices. Train packhouse workers in post-harvest handling and cold chain management.</i>
12	Volta Integrated Agricultural Development (VIAD)	Increase exportable quantities of mangoes by 10% per year over the next 5 years. TIPCEE will work with VIAD and its outgrowers to achieve its business objectives through provision of strategic management advice, support for implementation activities, access to financial and commercial linkages and operational assistance.
13	Federation of Associations of Ghanaian Exporters (FAGE)	Provide timely and accurate market information to the industry, development of grades and standards through the establishment of quality assurance and certification systems, develop GhanaGAP framework, capacity building of association.
	SOW	<i>Support the horticultural industry's participation in Fruit Logistica 2006.</i>
	SOW	<i>Mango Week 2006 to raise awareness that mango has the potential to be the next big horticulture export product for Ghana.</i>

	SOW	<i>Debriefing of Fruit Logistica for horticulture industry and other stakeholders.</i>
14	Goldfields, Newmont, College of Jewelry	Assist the College of Jewelry as a whole to become profitable and self-sustaining. TIPCEE will work with GFGL, Newmont and the College of Jewelry to support a diagnosis of College of Jewelry business operations and development of a business plan.
	SOW	<i>Support diagnostic study of the operations of the College of Jewelry and new business plan based on findings.</i>
15	Ghana Standards Board	Collaborate on creation of industry norms and standards.
16	Ghanaian Association of Vegetable Exporters (GAVEX)	Assist individual members and their growers to produce and market vegetables and vegetable products in the volumes required and according to acceptable quality standards for the target market. Encourage group marketing under a single quality brand name to local and international markets. Assure that members adhere strictly to a code of ethics for the vegetable.
17	Sea-freight Pineapple Exporters of Ghana (SPEG)	Increase exported fruit volumes by an average of 15% per year over the next 5 years. Specific activities will include development of product norms and inspection standards for the pineapple industry, palletization standards and procedures, a barcoding system, improved packaging materials and diagnostic of association.
	SOW	<i>Development of Public-Private Partnership Framework (legal, management/ownership, financial set-up) for Tema Shed 9.</i>
	SOW	<i>Marketing of MD2 and Smooth Cayenne pineapple to Capespan, a leading South African fruit exporter, and support in the negotiation of the final contract.</i>
	SOW	<i>Implementation of a Product Norms and Inspections Program to ensure industry appropriation of norms developed for the pineapple industry. These norms will be piloted over one year through tests at packhouses of participating firms and export departure points with the assistance of an international inspection firm.</i>
18	Yilo Krobo Farmers Association	Improve the quality of mangoes grown in the Yilo-Krobo area to meet export quality standards. Specific activities will include mapping of farms, GAP training, training of harvest team, trial shipment, development of product norms and inspections for the mango industry, EurepGAP and Fairtrade certification and establishment of bulking station or packhouse.
	SOW	<i>Training of candidates selected by the Association as field management and post-harvest specialists who will deliver farm management and post-harvest services on a sustainable basis to the industry in the district.</i>
	SOW	<i>Implementation of EUREPGAP Option 2 certification for the Association.</i>
19	Cashnut Foods	Advise on procurement and installation of processing equipment, train middle-level personnel, establish a quality assurance system and train key personnel on its operations.
	SOW	<i>Advise on procurement and installation of processing equipment, train middle-level personnel, establish a quality assurance system and train key personnel on its operations, assist in procurement of software to provide technical and financial information, and support access to</i>

		<i>export market.</i>
20	Janak Farm	Increase exportable quantities of vegetables by 20% per year over the next 5 years.
	SOW	<i>Implement a series of technological and crop diversification tests in order to demonstrate the positive effect on a selected array of Asian vegetable crops of various insect-proof netting technologies as well as the higher yield of selected virus-free okra seeds produced using Integrated Pest Management techniques, both in open field and insect-proof environment. Pilot test results to be shared with industry.</i>
21	Pentacom	Provide strategic management advice, support implementation of pilot activities, financial and commercial linkages and provide operational assistance to increase sales of mango.
	SOW	<i>Recruit farm manager with hands-on experience in mango production.</i>
22	Lartey and Associates	Provide strategic management advice, support implementation of pilot activities, financial and commercial linkages and provide operational assistance to increase sales of papaya.
	SOW	<i>Pilot sea shipment of papaya to Europe.</i>
23	Equatorial Capital Ventures (ECV)	Provide strategic management advice, support implementation of pilot activities, financial and commercial linkages and provide operational assistance to increase sales of vegetables, pineapple and papayas.
	SOW	<i>Diversification pilots of okra and baby corn, and innovation pilots of drip irrigation and insect-proof netting.</i>
24	Greenspan Farms Ltd.	Provide market linkages, financial restructuring and organic certification for pineapple outgrowers.
	SOW	<i>Financial restructuring and business plan preparation.</i>
	SOW	<i>Construction of fruit-washing basin and pineapple labels to enable export of Smooth Cayenne to a U.S. buyer.</i>
25	Horticulturists Association of Ghana (HAG)	Improve product quality.
26	Mango Farmers Association of Dangme West	Mapping of mango farms, Geographic Information Systems (GIS) training, Good Agricultural Practice (GAP) training, training of mango harvest team, Product Norms and Standards for mango, EurepGAP and FairTrade training, fruit bulking point.
	SOW	<i>Train candidates selected by the Association as field management and post-harvest specialists who will deliver farm management and post-harvest services on a sustainable basis to the industry in the district.</i>
	SOW	<i>Implement EurepGAP Option 2 certification for the Association.</i>
27	Global Al-Mas Farms	Production pilots of high-value agricultural produce such as papaya and chilies and testing drip pump and hose irrigation technology for the export and domestic markets.

28	Kintampo Mango Growers Association	Improve quality of mangoes grown in the District to meet export quality standards, strengthen the association through capacity building and create market linkages to mango exporters. Establish a database on production for market forecasting.
29	Organic mango Growers Association	Implement a series of activities to improve the production of quality mangoes from outgrower farms and to support the Association's development of the outgrower groups.
30	Allomal Farms	Implement a Smallholder Golden Papaya Mini Irrigation/Intensification scheme involving 1 hectare of irrigated golden papaya.
31	Adaeye Farms	Implement a Smallholder Golden Papaya Mini Irrigation/Intensification scheme involving 1 hectare of irrigated golden papaya.
32	Mashaco Farms	Implement a Smallholder Golden Papaya Mini Irrigation/Intensification scheme involving 1 hectare of irrigated golden papaya.
33	Soldier Farms	Implement a Smallholder Golden Papaya Mini Irrigation/Intensification scheme involving 1 hectare of irrigated golden papaya.
34	Rose Farms	Implement a Smallholder Golden Papaya Mini Irrigation/Intensification scheme involving 1 hectare of irrigated golden papaya.
35	John Lawrence Farms	Develop a business plan focusing on the remodeling of the existing processing plant to produce minimally processed pineapples and other fruits.
	SOW	<i>Improvements to the packhouse to provide a pre-cooling service on a pilot basis for 18 months to test assumptions of current public logistic platform concepts being evaluated by the Millennium Challenge Account (MCA) and the Ministry of Food and Agriculture under its World Bank funded Horticultural Export Industry Initiative (HEII).</i>
36	2K Farms	Implement a Smallholder Golden Papaya Mini Irrigation/Intensification scheme involving 1 hectare of irrigated golden papaya.
37	GTZ/HEII/TIPCEE	Implement a Smallholder Golden Papaya Mini Irrigation/Intensification scheme involving 1 hectare of irrigated golden papaya.
38	New Talent Farms	Implement a Smallholder Golden Papaya Mini Irrigation/Intensification scheme involving 1 hectare of irrigated golden papaya.
39	Wincoff Farms	Implement a Smallholder Golden Papaya Mini Irrigation/Intensification scheme involving 1 hectare of irrigated golden papaya.
40	JKD & Sons Farms	Implement a Smallholder Golden Papaya Mini Irrigation/Intensification scheme involving 1 hectare of irrigated golden papaya.
41	Osei Multi Farms	Implement a Smallholder Golden Papaya Mini Irrigation/Intensification scheme involving 1 hectare of irrigated golden papaya.
42	Papayine Farms	Implement a Smallholder Golden Papaya Mini Irrigation/Intensification scheme involving 1 hectare of irrigated golden papaya.
43	Philmadem Farms	Implement a Smallholder Golden Papaya Mini Irrigation/Intensification scheme involving 1 hectare of irrigated golden papaya.
44	Raca Farms	Implement a Smallholder Golden Papaya Mini Irrigation/Intensification scheme involving 1 hectare of

		irrigated golden papaya.
45	Param Farms	Implement a Smallholder Golden Papaya Mini Irrigation/Intensification scheme involving 1 hectare of irrigated golden papaya.
	SOW	<i>Implementation of a Smallholder Vegetable and Irrigation/Intensification scheme involving 1 hectare on Param Farms</i>
46	Natriku Farms	Implement a Smallholder Vegetable and Irrigation/Intensification scheme involving 5 hectares on Natriku Farms.
47	Tacks Farms	Implement a Smallholder Golden Papaya pilot scheme involving 5 hectares of irrigated golden papaya on Tacks Farms
48	Lawrence Farms	Implement a Smallholder Golden Papaya Mini Irrigation/Intensification scheme involving 1 hectare of irrigated golden papaya.
49	Green Finger Farms	Implement a Smallholder Golden Papaya Mini Irrigation/Intensification scheme involving 1 hectare of irrigated golden papaya.
50	PE & GY Farms	Implement a Smallholder Golden Papaya pilot scheme involving 2 hectares of irrigated golden papaya on PE & GY Farms.
51	Reshiga Farms	Implement a Smallholder Golden Papaya pilot scheme involving 5 hectares of irrigated golden papaya.
52	Teqagric Farms	Implement a Smallholder Golden Papaya pilot scheme involving 5 hectares of irrigated golden papaya.
53	Jei River Farms	Establish a GIS platform and database to improve the farm management of Jei River Farms Ltd.
	SOW	Implement a Smallholder Golden Papaya pilot scheme involving 5 hectares of irrigated golden papaya.
54	ASNAPP	Develop norms and standards for Griffonia and Voacanga to ensure the production, collection and export of high quality Griffonia and Voacanga resulting in increased incomes for the exporters and the rural poor engaged in the collection of these plants.
55	Chartered Impex	Implement a financial systems improvement and preparation of business plan.
56	Cashew Processors & Exporters Association of Ghana (CAPEAG)	Establish a cashew database using GIS mapping, improve the quality of cashew grown to meet export quality standards, provide technical grading standards and link exporters and cashew farmers for the supply of raw cashew nuts.
57	Cashew Development Project	Collaboration on 4 activities: (1) mapping cashew farms in production districts to enhance data management on production, (2) defining grading standards for the cashew industry, (3) training the industry in grades and standards, and (4) facilitating the formation of viable associations.
58	Savannah Agricultural Research Institute (SARI)	Strengthening the research links with agri-businesses by supporting the growth of farmer incomes through production of high-value produce such as French beans, chilies, okra, mango, melons and testing the use of technologies such as irrigation, greenhouses and insect-proof netting.

59	Irrigation Company of Upper Region (ICOUR)	Providing extension services, training, appropriate technology and capacity building of farmer-based organizations within the catchment areas to increase agricultural production.
60	Irrigation Development Authority (IDA)	Providing extension services, training, appropriate technology and capacity building of farmer-based organizations within the catchment areas to increase agricultural production.

ANNEX D. SUBCONTRACTS

The TIPCEE CAF uses fixed-price subcontracts to purchase an output or product that meets the larger objectives of TIPCEE. In a fixed-price subcontract, a firm agrees to produce discrete deliverables such as conducting a survey, developing and delivering a workshop, or conducting a study.

Subcontracts as of September 30, 2006 are listed below.

Number	Subcontracted Firm	Objective
1	Hand in Hand Ghana	To publicize the development of the National Labor Commission and organize the launch event.
2	Pentax Management Consultancy Services Limited	To work on behalf of the FINSSP secretariat to design and implement a Monitoring and Evaluation framework for FINSSP, and to train users in its application.
3	Capacity Development Consortium Limited	To review the operations and finances of the College of Jewelry's production and training units, and recommend action plans for their increased efficiency and profitability.
4	Centre for Remote Sensing and Geographic Information Services (CERSGIS)	To establish a GIS unit at the TIPCEE office and define the initial concept of the GIS database to be used. To train TIPCEE staff, farmers and industry stakeholders in the use of GIS.
5	Tertium Consulting	Provide logistical support for technical committee meetings and appropriation workshops to develop inspection manuals and work with industry to improve preliminary norms and standards.
6	Gismo Consult	To conduct mapping of mango farms in the major producing areas of Dodowa, Somanya and the Volta regions using GIS. This mapping will establish traceability through documentation software to enable management and monitoring of the dispersed production system of stakeholders.
7	Institute of Statistical, Social and Economic Research (ISSER)	Through its associated institute Energy Resource Center, provide expertise on energy economics and regulation and assist in designing an appropriate policy and regulatory framework for the secondary natural gas market in close consultation with the Government, the private sector, and other key stakeholders.
8	Gismo Consult	Map the papaya farms belonging to Dansak Farms and Lartey Associates and their outgrowers at Nsawam in the Eastern region using GIS. The farm mapping will establish traceability through documentation software to enable management and monitoring of the production systems by stakeholders.
9	General Law Consult	Design the Legal, Management, Ownership and Financial framework required to actualize Public Private Partnership for Tema Shed 9 and support SPEG in the understanding of the issues pertaining to the management of the renovated Tema shed 9 under a concession type PPP agreement and also in consensus from the parties to the PPP agreement (industry, MOFA, GPHA, World Bank) through a transparent, inclusive and informed process.
10	Capacity Development Consortium	Develop a detailed business plan for each of the two institutions of the College of Jewelry. Prepare a short industry overview of the jewelry sector in Ghana and an international market analysis and marketing strategy for Ghanaian jewelry sector.
11	Management and Economic Development Consultants Ltd	Field scouting to establish the expected production volumes of mangoes for the minor harvest season in January 2006 and in preparation of the 2006 major season (May-July). The mango consultants will provide hands-on advice on field work to be carried out in preparation of 2006 major season campaign. Farm management to provide technical support to all departments of Pentacom's mango farming operation.

12	Adprint Services	Design a logo, directory, PowerPoint presentation and posters for the Ghana booth at Fruit Logistica.
13	Global Media Alliance	Provide event coordination services for the Mango Week Event.
14	Ernst and Young (Gh) Ltd	Review the financial management environment in relation to cost accounting and cash flow management at Athena, using a process map / flow-chart. Current situations assessment of Athena's financial management environment in terms of its accuracy, timeliness, relevance as it compares with standards and best practices so as to identify the operational gaps and challenges. Develop solutions and action plan based on the results of the current situation assessment.
15	ASNAPP	ASNAPP will complement TIPCEE's current work with GSB in finalizing the norms and standards for Griffonia and Voacanga to ensure the production, collection and export of high quality Griffonia and Voacanga resulting in increased incomes for exporters and the rural poor engaged in collecting these plants.
16	Danquah Smith & Associates	Describe, document and assess the financial management environment of Bomarts as it relates to industry best practices. Design and deploy solutions and action plans based on the result of the current situations assessment. Develop a generic training approach based on the recommended system to undertake training/coaching of interested actors.
17	Capacity Development Consortium	First, it provides evidence of the extent of personal finance literacy among urban adults. Second, it examines why some urban adults are relatively more knowledgeable than others; the analysis should help identify factors that determine the level of financial literacy in urban adults. The third purpose is to examine how an individual's knowledge influences his/her opinions and decisions on personal financial issues.
18	Yankah & Associates	This subcontract requires the development of a communications strategy for the National Labor Commission to assist the NLC in educating stakeholders and the working populace on the provisions of the Labour Act. It will also develop a core set of functionally-oriented production-ready public education materials which will enable the Commission to deliver targeted messages to different audiences with the most appropriate medium. The final output will be public presentation materials for the staff of the NLC to deliver their message at public meetings such as workshops, forums, and press conferences.
19	BIVAC International	In collaboration with FAGE and the Ghana Standards Board (GSB), TIPCEE is supporting SPEG in implementing a Product Norms and Inspections Program to ensure industry appropriation of norms developed for the pineapple industry. These norms are to be piloted over nine months through tests at packhouses of participating firms and export departure points with the assistance of an international inspection firm. After the pilot, the industry can elicit the assistance of GSB to take the accepted norms through a legalizing process. The legalizing process is excluded from this Scope of Work. The pilot data will be analyzed by the industry to identify issues and implement corrective measures to improve quality of fresh pineapple exports from Ghana. As quality is improved it is expected that the value of exports will increase accordingly. Bivac is the implementing subcontractor.

ANNEX E. FARAS

The TIPCEE CAF uses fixed-amount reimbursable agreements (FARA) to purchase an output or product from a governmental organization or agency that fits into the larger objectives of TIPCEE. Features of a FARA include:

- An implementation plan that clearly defines milestones
- Co-funding, when appropriate
- Cost-sharing is required

FARAs as of September 30, 2006 are listed below.

Number	FARA Organization	Objective
1	Ghana Standards Board	Ghana Standards Board (GSB) and TIPCEE are collaborating on 2 different activities: (1) a pilot inspections program for the pineapple industry, and (2) Norms and Inspection Manuals for selected horticultural products.
2	Cashew Development Program	Cashew Development Project (CDP) and TIPCEE are working on 4 different activities: (1) mapping cashew farms in production districts to enhance data management on production, (2) defining grading standards for the cashew industry, (3) training the industry in grades and standards, and (4) facilitating the formation of viable associations.
3	Bawku Municipal Directorate of Ministry of Food and Agriculture	Bawku Municipal Directorate of MOFA shall provide technical assistance in the introduction of integrated pest management (IPM), safe use of pesticide and high value crops such as French beans, chilies, melons, okra and onions to smallholders in the district to increase their incomes through exports.
4	Irrigation Development Authority	IDA shall provide technical guidance on integrated pest management (IPM), safe use of pesticide and high-value crops such as French beans, okra, chilies and onion to the smallholders to increase their incomes through exports.
5	Savannah Agricultural Research Institute	Collaboration on 5 different activities: (1) introducing high-value agricultural produce, (2) establishing on-station trials, (3) training on integrated pest management (IPM) and safe use of pesticides, (4) support good production practices in the mango sector, and (5) dissemination of on-station trial results.

ANNEX F. MONITORING AND EVALUATION

Selected indicators

Indicator	Baseline FY 2005	FY 2006 Actual (INCREMENTAL)	FY 2006 Target	LOP Target
Value of commodities exported by assisted firms (US \$)	19,340,000	5,398,613	5,000,000	75,000,000
Volume of commodities exported by assisted firms (MT)	43,400	(2,900)	3,000	73,000
Value of sales by assisted firms (US \$)	19,930,000	5,277,549	5,150,000	78,650,000
Volume of sales by assisted firms (MT)	50,300	(776)	3,750	91,250

In FY 2006, TIPCEE-assisted firms generated \$24.74 million from the sale of 40,500 MT of raw and processed vegetables and fruits to the export market. This represents an increase of \$5.40 million over baseline and a variance of 8% over target. High export sales from GAVEX members accounted for the over-achievement.

Commodities exported included fresh pineapples, papaya, chili pepper, new okra varieties introduced by TIPCEE, and Asian vegetables. These products were mainly exported by air and sea to the EU market by 52 agricultural related enterprises, 40 of which belong to SPEG and GAVEX. Total sales (export and domestic) from TIPCEE-assisted firms amounted to \$25.2 million, an incremental sales figure of \$5.28 million above baseline.

However, targeted volume of sales was not achieved largely as a result of the shift in pineapple exports from the traditional Smooth Cayenne variety to MD2. Most pineapple firms suffered reduced Cayenne exports, which has a lower export market price than MD2. Firms assisted in mango did not export in the major season due to delay in flowering and fruit set. The main commodities sold on the domestic market were fresh and processed pineapple, papaya, okra and baby corn.

FY 2007 will be another difficult year for the pineapple industry, since the market has shifted to MD2, but Ghanaian farms do not yet have enough MD2 planted to supply the demand. TIPCEE interventions are helping speed the shift to MD2 with a goal of having MD2 exports on the market by 2007 with the amount steadily increasing each subsequent year. TIPCEE is training and supporting mango firms with good agricultural practices (GAPs) and, if climatic conditions hold, we believe FY 2007 will be a better year for these firms.

TIPCEE No.	TIPCEE Indicators	Baseline	TIPCEE Jan-Sep 2005 Performance	FY06 Actual	FY06 Target	LOP	Notes
1	Values of commodities exported by assisted firms	19,340,000		5,398,613	5,000,000	75,000,000	US\$. Baseline from Oct 2004 – Sep 2005. Target is incremental. FY06 actual (Oct 05 - Sep 06) is incremental export sales from baseline. High export sales from GAVEX members accounted for the positive variance.
2	Volume of commodities exported by assisted firms	43,400		(2,900)	3,000	73,000	Units in Metric Tons. Baseline from Oct 2004 - Sep 2005. Target is incremental. Negative variance largely a result of shift in exports from Smooth Cayenne to MD2. Most pineapple firms have reduced Cayenne exports with low export market price compared to MD2.
3	Value of sales by assisted firms	19,930,000		5,277,549	5,150,000	78,650,000	US\$. Baseline from Oct 2004 - Sep 2005. Target is incremental. FY06 actual (Oct 05 - Sep 06) is incremental export sales from baseline. High export sales from GAVEX members accounted for the over-achievement.
4	Volume of sales by assisted firms	50,300		(700)	3,750	91,250	Units in Metric Tons. Baseline from Oct 2004 - Sep 2005. Target is incremental. Negative variance largely a result of shift in exports from Smooth Cayenne to MD2. Most pineapple firms have reduced Cayenne exports with low export market price compared to MD2. Cayenne sales in the local market was not sufficient to offset the low volumes in the export market.
5	Number of ICT market information products implemented	0	3	18	15	40	Incremental. FY 2006 target exceeded. ICT Products include fresh produce website, Eurostat DVD, e-mail-based news alert, CD Directory, CD Database, etc.

6	Number of business relationships formed with non-Ghanaian enterprises	0	3	16	15	65	Incremental. Business relationship established through okra for vegetable exporters.
7	Value of sales by assisted producer group	314,931		(110,717)	1,000,000	15,000,000	US\$. Revised baseline for producer groups. Baseline figures from mango and pineapple (MD2) producer groups. MD2 pineapple sales will come in 2007. Major mango season from Jun - Aug 2006 was poor due to delay in flowering. Annual figures represent Cayenne, new hybrid okra, minor season mango and Solo papaya.
8	Volume of sales by assisted producer group	2,416		(454)	1,200	39,700	Units in Metric Tons. Revised baseline quantities sold by mango and pineapple (MD2) producer groups. MD2 pineapple sales will come in 2007. Major mango season is also from Jun - Aug 2006. Annual figures represent pineapple (Smooth Cayenne), papaya (Solo), minor season mango, new hybrid okra sales.
9	Number of assisted firms meeting EurepGAP or other standards	24	2	26	30	60	Cumulative figure. TIPCEE is currently assisting Bomarts outgrowers to obtain EurepGAP and Fair Trade Certification. 25 mango producers, including 2 TIPCEE-assisted enterprises are undergoing EurepGAP Option 2 certification program.
10	Number of assisted firms purchasing from smallholders	33		33	40	70	Cumulative figure. Baseline was taken at the time each firm is signed on as a TIPCEE client.
11	Number of outgrowers working with assisted firms	997		1,966	2,000	7,000	Cumulative figure.

12	Number of assisted firms using sustainable NRM practices	24		26	30	60	Cumulative figure. Baseline was taken at the time each firm signed on as a TIPCEE client.
13	Number of public-private partnerships formed involving assisted firms	0	6	1	15	65	Incremental.
14	Number of persons trained from assisted firms	0	182	842	1,000	5,000	Incremental. Comprised of 685 males and 157 females. This includes 150 persons attending Mango Week.
15	Number of assisted firms	0	47	55	60	90	Cumulative figure. 52 agri-related and 3 non-agri-related firms.
16	Number of assisted agricultural-related firms	0	46	52	59	80	Cumulative figure. Indicator 15 less College of Jewelry, Newmont and Goldfields.
17	Gross margins per unit of land for assisted commodities		-				Reported annually. Training of sentinel farmers is ongoing. TIPCEE is monitoring and will collect data from them in the next six months. Because of the MD2 varietal shift and delay in flowering in mango, TIPCEE sentinel farmers have yet to make appreciable sales to calculate Gross margins of the respective crops. GM on pineapple and mango will be reported in next semi-annual report.
	Pineapple	1,226			1,263	1,462	
	Mango	1,334			1,374	1,591	
	Papaya	1,272		1,300	1,310	1,517	Gross margin set to increase by 3% in 2006 and 5% annually.

	Cashew	112		114	115	134	Tree age on the farms ranges between 8 and 20 years.
	Vegetable (Pepper)	2,926		3,000	3,014	3,489	Crop type is chili pepper and the variety is Legon 18.
	Vegetable (okra)						Training of participating farmers in financial productivity is underway. Okra budget estimated by TIPCEE ranges between \$1,365 and \$2,452 per hectare for low vs. high price respectively.
18	Number of smallholders adopting new technologies	0	-	2,002	2,520	10,500	Figure comprises smallholders adopting Golden papaya (10), new okra variety (715), MD2 (609), and mango (192).
19	Share of total commodity area farmed using new technologies				10%	35%	See next two rows for share of area under technologies.
	MD2	0		6%			Figure represents MD2 area under nursery by 52 groups with total membership of 609. Addition of several groups resulted in Cayenne acreage increasing without a corresponding increase in the area cultivated to MD2 (nursery) during the past six months. Adoption will increase when farmers transplant MD2 suckers to their fields.
	New okra variety	0		34%			Figure represents area under cultivation by okra farmers.
20	Number of assisted producer groups using sustainable NRM practices	0	13	103	60	250	Cumulative figure.
21	Number of producers trained	0	198	4,539	7,000	45,000	Incremental. Comprised of 3454 males and 1085 females; includes 500 smallholder producers at Mango Week.

22	Number of rural households benefiting directly from TIPCEE interventions	0	1,785	3,514	3,600	15,000	1,353 vegetables (GAVEX outgrower farms being mapped) including 111 vegetable farmers already mapped in Central Region, 590 new veg farmers in okra test phase 2. 1147 pineapple farmers from 99 groups will receive MD2; 52 groups (609 farmers) have benefited. 312 mango (identified, mapped, some trained); 80 from Yilo Krobo and 76 from Dangbe West. 102 Kintampo area mango producers (received training from TIPCEE). 10 papaya producers in Golden variety & irrigation program.
23	Number of vulnerable rural households benefiting directly from TIPCEE interventions	0	310	571	400	6,000	Cumulative figure. Covers 156 Mango growers in Yilo Krobo, 111 vegetable growers, and 304 pineapple growers in Central Region benefiting from TIPCEE intervention.
24	Number of smallholders linked to markets through enterprises	0	1,785	3,191	2,520	10,500	Cumulative figure. All TIPCEE interventions are geared towards linking smallholders to markets. New okra groups(590) linked to vegetable exporters.
25	Number of assisted producer groups providing services to members	0	21	176	150	500	Cumulative figure. All groups provide some services to members especially acquisition of inputs and group weeding on individual farms.
26	Number of assisted producer groups	0	21	176	180	600	99 MD2 groups. 29 GAVEX groups (includes 20 groups in Adidome identified for mapping). 47 new okra groups. 1 Papaya group (under Dansak).

27	Number of paid services delivered by service providers and associations	0	26	163	800	8,300	Incremental. Includes transactions from BDS Providers during trial shipments, mapping, and Fair Trade certification.
28	Paid-up membership of assisted associations	97		278	168	238	Cumulative figure. SPEG (22 pineapple exporters). GAVEX (17 vegetable exporters). Yilo Krobo Mango Assoc (80 members). Dangbe West Mango Association (66 members). Kintampo Mango Farmers Association (40). HAG (30). VEAPEG (23).
29	Effectiveness of assisted associations	35%			40%	55%	Baseline represents average for GAVEX (25%), HAG (41.3%), VEPEAG(37.50%), Yilo-Krobo (47.28), Dangbe West (41.30). PIVA score for SPEG is 60.3%. Score ranges between 25 - 100%. Baseline for FAGE to be determined and reported annually.
30	Number of public-private partnerships formed involving associations	0	9	15	15	50	Cumulative figure. CERSGIS, Nat. Service Secretariat HEII/MOFA, GSB (with 4 associations), GRATIS Foundation, NHTF, Soil Research, UG-ARS Kade, UG-Ag. Faculty, MOFA-SPEG, MOFA-GAVEX, VEPEAG- ARS (UG).
31	Number of assisted commodity associations	0	4	8	5	12	Cumulative figure. SPEG, GAVEX, VEPEAG, Dangbe West and Yilo Krobo Mango Farmers, HAG, Kintampo mango producers and FAGE.
32	Number of assisted women's organizations	0	-		1	5	Incremental. Baseline is zero. TIPCEE is assisting Natriku Women's Vegetable Org. located at Akuse, Eastern Region.

33	Number of assisted BDS providers serving smallholders	0	8	28	15	50	Incremental. Baseline is zero. FY 2006 target exceeded.
34	Number of client firms receiving services from assisted BDS providers	0	6	47	30	70	Cumulative figure. FY 2006 target exceeded. This includes exporters from SPEG, GAVEX, PE, GY, Athena and John Lawrence.
35	Number of agricultural-related technologies made available for transfer	0	14	23	20	115	Incremental. Baseline is zero. Technologies made available between Oct 05 and Sep 06 include 4 new okra varieties, Golden papaya, drip irrigation on papaya, plastic mulching for MD2, cutting of mango fruit peduncle, mango harvesting, sea-freighted specific boxes and pallets, pole pruner, spray car, scouting tech for pest infestation, etc.
36	Quality of the enabling environment for private sector	0.26		0.64	0.30	0.45	Scale of +2 to -2, based on average score from expert panel for 7 sectors. Represents the quality of enabling environment as assessed in July 2006. Experts gave higher scores for Agriculture, Labour, Energy and ICT. Reported annually.
37	Progress toward reform of targeted policies	Matrix	-		▲	▲	To be attached as an annex to the report.
38	Number of policy and regulatory reforms implemented	0	-	8	10	28	Incremental. Baseline is zero. Policies & regulatory reforms under implementation include M&E FINSSIP, NLC, PPP at shed 9 (construction), Venture Capital Trust Fund, VCTF guidelines document for fund operations, Financial Sector Division (2 LIs), Ghana Stock Exchange Rulebook, Tripartite Committee.

39	Quality of dialogue as viewed by stakeholders	0	1.23	1.34	1.25	1.40	Scale of +2 to -2. Figure represents average from Oct 2005 - Sep 2006.
40	Number of private-public policy debates	0	6	9	22	72	Incremental. Baseline is zero. 15 PPDs have been organized with TIPCEE support on topical policy issues such as ICT bills, pesticide regulations, secondary distribution of natural gas, Pesticide Mgt Fund, FASDEP Revision, etc.
41	Quality of dialogue	0.23		0.44	0.30	0.50	Scale of +2 to -2. Based on average score received from expert panel for 7 sectors. This represents the quality of the dialogue assessed by policy experts in July 2006. Reported annually.
42	Effectiveness of assisted policy units	41%			43%	55%	Baseline PIVA score for Policy Analysis Unit of MOFEP carried out in April 2006. PIVA for NLC is ongoing.
43	Capacity to administer policies and regulations	-0.29		(0.06)	(0.25)	(0.10)	Scale of +2 to -2. Based on average score from expert panel for 7 sectors. This represents the capacity of MDA's to implement policies as assessed by policy experts in July 2006. Experts gave high scores for Labour, Trade and Energy, a marked improvement from the baseline scores.
44	Number of members of policy units trained	0	117	358	60	200	Incremental. 320 males and 38 females; includes 50 person attendance at Mango Week. FY 2006 target exceeded. Several MOFA Agric Extension Agents have received training in mango GAPs and mapping. Also includes MOTI staff and other MDAs trained in Eurostat Comext.
45	Cold chain throughput at Accra airport	0			-	10,000	Cumulative figure.

	Cold chain throughput at Tema port	0			-	85,000	Cumulative figure. This indicator was not included in TIPCEE's PMP, but will be measured to assess impact of TIPCEE's work with sea freight.
	<i>n/a - Not reported semi-annually</i>						

ANNEX G. EXAMPLES OF TIPCEE ILLUSTRATED NORMS POSTERS
