PN-ACS-583

RDI REPORTS

MALR
USAID
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RDI

Ministry of Agriculture & Land Reclamation
US Agency For Intl. Development
Agriculture Policy Reform Program
Reform Design and Implementation

وزارة الزراعة واستصلاح الأراضي
الوكالة الأمريكية للتنمية الدولية
مشروع إصلاح السياسات الزراعية
وحدة تصميم وتنفيذ السياسات

Ministry of Agriculture and Land Reclamation

AGRICULTURE POLICY REFORM PROGRAM

Reform Design and Implementation Unit (RDI)

USAID CONTRACT NO. 263-C-00-97-00005-00

APRP

Reform Design and Implementation Unit

Development Alternatives Inc. Group: Office for Studies & Finance, National Consulting Firm Development Associates, Cargill Technical Services, The Services Group, Training Resources Group, Purdue Universities, University of Maryland

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Horticulture SubSector Policy and Regulatory Constraints

Report No. 57

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January 1999

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RDI Acronyms List

ACRONYM	*DESCRIPTION*
AC	Agricultural Census
ACDI	Agricultural Cooperative Development Institute
AERI	Agriculture Engineering Research Institute
AHD	Aswan High Dam
AIC	Agricultural and Irrigation Committee of the People's Assembly
ALCOTEXA	Alexandria Cotton Exporters Association
APRP	Agricultural Policy Reform Program
ARC	Agriculture Research Center
ATUT	Agricultural Technology Utilization & Transfer Program
AY	Agricultural Year Locator (October 1st to September 30th of the following year)
BOD	Board of Directors
CAGA	Central Administration for Governorates Affairs
CAPMAS	Central Agency for Public Mobilization & Statistics
CAPQ	Central Administration for Plant Quarantine, MALR
CASC	Central Administration for Seed Certification
CASP	Central Administration for Seed Production
CAWD	Central Administration for Water Distribution
CBE	Central Bank of Egypt
CIDA	Canadian International Development Agency
CIF	Cost, Freight and Insurance
CIPE	Center for International Private Enterprise
CMA	Capital Market Authority
Co.	Company
CODEX	Code of Food Standards developed by an international commission in 1962
COP	Chief of Party
CSPP	Egyptian-German Cotton Sector Promotion Program
CTS	Cargill Technical Services
DA	Development Associates, Inc.
DAI/B	Development Alternatives, Inc./Bethesda
DEPRA	Development Economic Policy Reform Analysis
EAO	Egyptian Agriculture Organization

ACRONYM	*DESCRIPTION*
EEA	Egyptian Exporters Association/ExpoLink
EEPC	Egyptian Export Promotion Center
ELS	Extra Long Staple Cotton
EMIPAC	Egyptian Marketing Agricultural Company
ERSAP	Economic Reform and Structural Adjustment Program
ESAS	Egyptian Seed Association
ESAs	Employee Shareholder's Association
ESOPs	Employees Stock Ownership Program
EU	European Union
FAO	Food and Agricultural Organization of the United Nations
FDIs	Foreign Direct Investments
Fed.	Feddan = 4200 square meter
FIHC	Food Industries Holding company
FOB	Free on Board
FSR	Food Security Research Unit
FY	Fiscal Year
GA	General Assembly
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GOE	Government of Egypt
GTZ	German Technical Assistance Agency
HC	Holding Company
HEIA	Horticultural Export Improvement Association
IDA	International Development Association
IFC	International Financial Cooperation
IPPC	International Plant Protection Convention
IPO	Initial Public Offering
IIMI	International Irrigation Management Institute
IR	Intermediate Results
ITC	International Trade Center
JETRO	Japan Export Trade Organization
Kg.	Kilogram
Kt.	Kentar

ACRONYM	*DESCRIPTION*
Libra	Pound of 0.45359 kilogram, also abbreviated as lb.
LE	Egyptian Pound
LK	Lint Kentar of cotton, 50 kgs.
LOE	Level of Effort
LS	Long Staple cotton
MALR	Ministry of Agriculture & Land Reclamation
MENA	Middle East North Africa
MEIC	Ministry of Economy & International Cooperation
MIMW	Ministry of Industry & Mineral Wealth
MT	Metric Ton
MOF	Ministry of Finance
MoTS	Ministry of Trade & Supply
MPE	Ministry of Public Enterprises
MPWWR	Ministry of Public Works & Water Resources
MLS	Medium-Long Staple cotton
MVE	Monitoring, Verification & Evaluation Unit
NARS	National Agriculture Research Center
NBE	National Bank of Egypt
NCF	National Consulting Firm
NFPA	National Food Processor Association
NGO	Non-Governmental Organization
O & M	Operation & Maintenance
OSAF	Office for Studies And Finance
OVR	Office of Variety Testing & Registration
PA	People's Assembly
PBDAC	Principal Bank for Development and Agricultural Credit
PEO	Public Enterprise Office
P&L	Privatization & Liberalization
PIDP	Partnership In Development Project
PMU	Project Management Unit
PPC	Program Planning Committee
PRA	Participatory Rapid Appraisal
PU	Purdue University

ACRONYM	*DESCRIPTION*
PVP	Plant Variety Protection
RETD	Real Estate Tax Department
RDI	Reform, Design & Implementation Unit
ROW	Rest of the World
SCC	Sugar Crops Council
SCRI	Sugar Crops Research Institute
SIIC	Sugar and Integrated Industries Company
SK	Seed Kentar of cotton (157.5 kgs.)
SPC	Seed Privatization Committee
SS	Short Staple cotton
STTA	Short Term Technical Assistance
SWG	Sugarcane Working Group
TA	Technical Assistance
TAMIS	Technical & Administrative Management Information System
TAT	Technical Assistance Team
TF	Task Forces
TO	Training Officer
TOR	Terms of Reference
TNA	Training Needs Assessment
TRG	Training Resources Group
TSG	The Services Group
UIT	Unified Income Tax
UMD	University of Maryland
USAID	United States Agency for International Development
US$	United States Dollar
USPMA	U.S. Produce Marketing Association
USDA	U.S. Department of Agriculture
VAT	Value Added Tax
WB	World Bank
WTO	World Trade Organization
WUA	Water User Association

Horticuture Subsector Policy and Regulatory Constraints

EXECUTIVE SUMMARY

BACKGROUND

Horticulture is an important segment of Egyptian agriculture, accounting for approximately 20% of gross domestic product and 35% of the total work force. Related trading, processing and service activities significantly increase its overall importance. Horticultural products account for about 40% of total crop production value and are grown by hundreds of thousands of small farmers. The high value of horticultural products is an important factor in small farmer income. Fruits and vegetables are also very important in the Egyptian diet, following only cereals in total per capita consumption.

Production of horticultural products has increased significantly in recent years as agriculture was liberalized and Egyptian incomes and demand rose. This resulted in two very important changes: the shift of major amount of Delta lands from fruits to vegetables and the emergence of large scale export-oriented fruit farms in the New Lands.

Horticulture has been less affected by Government of Egypt (GOE) policies than other areas of farming. Nevertheless, a 1996 survey by The Services Group and SRI International (TSG/SRI) identified various GOE policies and regulations that had an adverse impact on the export segment of the industry. A recent survey of Horticultural Exports Improvement Association (HEIA) members identified major GOE policy problems they face, some of which concurred with and some of which differed from the TSG/SRI survey.

The Agricultural Policy Reform Program (APRP) wants to determine if there are areas in horticulture where GOE policies and regulations should be changed to enhance sector growth. In addition, APRP is interested in whether existing institutional support mechanisms meet the needs of the sector or if additional support is needed. APRP's interest extends beyond the export sector and covers domestic issues as well. This report presents the findings of a Short Term Technical Assistance (STTA) activity to identify and assess the constraints and support mechanisms of interest to APRP.

MAJOR POLICY AND REGULATORY CONSTRAINTS

Major constraints were identified in the areas of market information, planting materials regulation, pesticide regulation, agricultural technology transfer, post-harvest handling, transportation, food processing, and possibly taxes. Brief comments on the most serious of these constraints - those in transportation, post-harvest handling, agricultural technology transfer, and pesticide regulation - are presented below. A summary of all constraints identified and possible APRP actions and benchmarks regarding these constraints are included at the end of this section.

Transportation

The shortage of transportation for highly perishable products to export markets is the most serious constraint facing the export of horticultural products. For products needing airfreight, there is more than twice as much product to ship in the high season as there is regularly scheduled space available. Further, the cost of this space is high relative to product shipped from Jordan and Israel. Coupled with the difficulty and high cost of obtaining additional charter space, exporters cannot ship all current export quality products, a problem which will only increase as the impact of improved agricultural technology and increased acreage are realized in the years ahead. For products shipped by sea there is a shortage of direct as well as indirect service which can deliver available product in a timely manner. There is also a shortage of refrigerated trucks and of proper air terminal cooling space at Cairo International Airport, which results in reduced quality of products shipped.

The space situation has improved in recent years and will continue to do so, largely as a result of competitive pressures. For example, there has been an improvement in the availability, cost, and capability of sea freight refrigerated container shipping in the past year. As volumes shipped via sea increase, additional pressure will be put on airfreight providers. However, these competitive pressures will be insufficient to meet the expected needs of shippers. APRP may be able to play a role in increasing competition by obtaining a more liberal open skies policy for air cargo.

The shortage of refrigerated trucks may be the direct result of GOE import duties which more than doubled the CIF (cargo insurance and freight) Egypt value of refrigerated trucks, and of GOE and other regional government policies, which restrict cross-border truck activity. The GOE is considering reduction of the import duty on refrigerated trucks to 5% (from as high as 70% two years ago). APRP should work to eliminate the duty and any non tariff barriers completely. If it is inclined to pursue a regional change, APRP should work with the GOE to create a regional "free trucking zone".

Improving sea freight services is primarily a matter of competition and increasing Egyptian imports. However, the GOE monopoly position in port ownership and service activities appears to result in slower service and higher costs, and thus perhaps limited shipping service, than might be expected if these services were provided by the private sector on a competitive basis. Should APRP seek improved services and port and/or port services privatization, the scope of this activity would extend well beyond horticulture.

The Horticultural Export Improvement Association (HEIA) is about to commission an assessment of the adequacy of Cairo International Airport to handle horticultural and other refrigerated products. APRP is participating in the policy analysis of this assessment. APRP's objective in any subsequent action should be to privatize the existing facility and restrict provision of these services to private sector companies.

Post- Harvest Handling

The major problem facing domestic horticulture is the lack of adequate post-harvest handling. This results in significant product loss, estimated by some to be over 30%. This has been a problem in the export sector as well, although major production/export operators are using proper packing crates and installing modern grading, packing, and storage facilities. This is unlikely to happen in the domestic sector for some time unless the GOE establishes an incentive program to encourage potential investors, probably traders and farmer cooperatives. The major economic benefit will be the reduction in the amount of land required for existing production volume, thereby freeing it for other uses. Product quality will also be prolonged and some additional product may become available for export.

APRP can assist the GOE in developing an incentive program by conducting feasibility analyses of various program options. One possible GOE action is to encourage the use of better packing crates than the current palm rib crates. Another is to encourage the construction of modern cooling facilities for grading and packing in areas of small farmer horticultural production, and of appropriate storage facilities at major markets (as has been done at the El Obour and 6 October markets). These improvements should be undertaken by the private sector but they are likely to require tax incentives to be sufficiently profitable. Apart from these actions APRP should work for the elimination of import duties and possibly sales taxes on these facilities. An APRP analysis of GOE revenue implications of these actions will be necessary.

Agricultural Technology Transfer

There is a major opportunity to increase both product yield and quality through transfer of more modern agronomic technology, especially at the small farmer level. The Agricultural Technology Utilization & Transfer (ATUT) project and HEIA are demonstrating what can be accomplished in this area but their focus is on export products. Ministry of Agriculture & Land Reclamation (MALR) extension activities do not include a significant effort in horticultural products. MALR Horticulture Department extension activities have not provided the major impact MALR desired.

The constraint here is GOE's inability to provide horticultural producers the necessary field extension support to effect the transfer of appropriate technology. APRP has identified this as a problem beyond horticulture. It has secured MALR's concurrence to initiate a move toward privatized extension and research. (See APRP Tranche III benchmark D.8). It is recommended that APRP initiate this experiment with a pilot project for a private horticultural extension service in one Governorate. If the GOE agrees to this pilot project, the extension workers will become aware of field problems that require research and these can be coordinated with existing GOE research operations to test their effectiveness. If they are not responsive, APRP should explore the alternative of a privatized research service.

Pesticide Regulation

A MALR decree prohibiting the import of most U.S. Environmental Protection Agency B and C list pesticides except by large, export-oriented growers has limited Egyptian agriculture to using outmoded pesticide technology. The stated reason for the prohibition is a belief that most Egyptian farmers do not know how to use pesticides in a safe manner for them and for consumers. The effects of the decree has been to reduce the ability of Egyptian farmers to cope with pesticide problems and to encourage smuggling of products which are less safe and less efficacious. In addition, MALR procedures for testing new products are too stringent to allow timely testing and release of new products which are not on the B and C list. There is also a lack of coordination between MALR and Department of Human Health (DHH) testing with the result that household pesticides, which are regulated by DHH, are finding their way to the agricultural market where they are inappropriate and in some instances unsafe. Finally, the GOE is not following appropriate Food & Agricultural Organization guidelines for pesticide label content.

If fully implemented, Decree 663 of 1998 ("Providing for the Agricultural Pesticides") will resolve most of these problems. However, appropriate implementing regulations need to be passed and testing procedures must allow for timely testing and approval of new and safe technology.

APRP has established a benchmark with the GOE for liberalization and more appropriate regulation of agricultural pesticides. APRP must identify and promote streamlined testing and approval procedures, promote a coordinated and consistent approach to total pesticide regulation for industrial and household pesticides, eliminate the current import planning and quota system, establish appropriate pesticide residue standards with MALR, and pursue eliminating import duties on pesticides. These actions will require APRP to analyze the current situation and develop appropriate recommendations for GOE consideration.

INSTITUTIONAL SUPPORT MECHANISMS

There are a number of existing GOE and donor-funded organizations promoting horticulture in various ways. These include the MALR, various agricultural unions and cooperatives, the Egyptian Export Promotion Centre, the Egyptian Exporters Association/ExpoLink, USAID's Agricultural Technology Utilization & Transfer Project, and the Horticultural Export Improvement Association. USAID's 1994 analysis "Export and Investment Promotion Services. Do They Work" reached several conclusions that apply to these institutional organizations. These conclusions are:

1. Government trade promotion agencies often lack autonomy to select focus areas and clients. Their budget constraints limit their access to technically qualified staff

necessary to provide high quality services. Private sector involvement may or may not be present. Budgets are usually low but sustainable.

2. Private trade promotion agencies have greater autonomy to select focus areas and clients and better access to the skilled people who can provide high quality services. Private sector involvement is high. Sustainability is a key issue.

3. Exporter associations are often weak in selecting a focus and clients unless they are targeted to a specific commercial sector. While they often end up promoting a standardized service package (similar to like government promotion organizations) they can deliver high quality services. Private sector participation is high. Independent sustainability is an issue.

4. Well designed targeted programs, usually donor funded, have been the most successful providers of export development services. They are focused by their very nature, have substantial flexibility to select clients provided they are not dominated by a host country government office, have highly qualified staff with international market contacts, and access to backup technical support. They are financed by donor funds hence long-term sustainability and to some extent private sector involvement are limited.

GOE offices involved in agriculture, associated unions and cooperatives are constrained by a low level of funding, employment laws, and/or a management orientation that has not yet adjusted to a liberalized economy. In its activities to liberalize the agricultural economy APRP needs to determine how MALR and other GOE office capabilities can be integrated into an overall private/public effort to support horticultural development. APRP activities with agricultural unions and cooperatives should focus on achieving broad reforms and attendant management and organizational development programs that help these organizations adjust to the liberalized economy.

The Egyptian Export Promotion Centre and Egyptian Exporters Association/ExpoLink have constituencies which are far broader than horticulture. Further, they are focused on processing and manufacturing activities. They can provide APRP access to their constituencies for information on potential policy reforms and for lobbying activities on behalf of specific reforms.

ATUT's horticulture component and HEIA provide a range of support services to the export horticultural sector. Their efforts are being successful in transferring both agro-technology and marketing assistance. In addition HEIA has moved into advocacy activities to improve the GOE policy and regulatory environment for its member activities. Ideally ATUT activities which can be supported by the private sector will be transferred to HEIA as ATUT proceeds. APRP should support HEIA with policy analysis for it advocacy program and in a series of fora with industry service providers (for example, transportation companies) to promote dialogue on needs, existing services, common problems, etc.

It appears that ATUT is encountering some problems related to its being managed by a GOE agency (the Agricultural Research Center - ARC). ARC is a research-oriented organization and is also subject to political considerations. At times decisions that may be dictated by these conditions are in conflict with the commercial orientation ATUT must take if it is to be successful. It is therefore recommended that USAID take the opportunity of the current negotiations with the GOE regarding ATUT's post 1999 activities to establish ATUT independent of GOE control. We believe this is essential for ATUT to achieve the goals for which it was established.

An obvious gap in the aforementioned institutional support mechanisms is any program focused on development of the domestic horticultural sector. While it is true that development of the export sector will have some impact on the domestic sector, this impact will be relatively slow in coming. It is recommended that APRP examine the feasibility of establishing a separate private effort focused on domestic horticulture. Such an organization, which will require donor support, could provide a variety of services. Examples include market information, technology transfer activities, policy analysis and advocacy, and strategic investments in promising new ventures.

Three types of organizations that have provided some of these services in other countries were reviewed briefly. These are Fundacion Chile, Costa Rica's Coalition for Development initiatives, and private U. S. horticultural sector groups. Several success factors emerge from the experience of the Chilean and Costa Rican models. They are the necessity of independent funding, which over the long term requires a private foundation; independence from government/political influence, a highly focused mission, an initial staff of management and technical expertise having extensive international experience, and ready access to short-term technical assistance.

SUMMARY OF CONSTRAINTS AND POSSIBLE APRP ACTIONS AND BENCHMARKS

AREA/CONSTRAINT	POSSIBLE APRP ACTION	POSSIBLE APRP BENCHMARK
Fresh Produce Market Information Current GOE and donor funded systems for gathering, disseminating and analyzing market information are inadequate, uncoordinated, and in the case of donor projects have a limited life.	Develop a recommended private sector system to gather and disseminate price and trade information on fresh horticultural products at major domestic and export terminal markets. If implementing the recommended system proves successful, extend it to additional products.	The GOE will support formation of a private sector market information service for horticultural products by providing access to GOE sources of market information including but not limited to MALR gathered data, GOE wholesale markets, and the WTO International Trade Centre.
Planting Materials GOE registration procedures for planting materials result in delays in seed availability, adversely affecting Egyptian farmers' ability to bring new improved varieties to markets. The production and marketing of seedlings is essentially unregulated and can result in unscrupulous seedling and nursery stock companies producing and marketing mislabeled planting stock.	Implement the policy and regulatory recommendations presented in the RDI Delouche report. This may require additional consultancies to recommend implementing procedures and regulations and to complete a cost-benefit analysis quantifying the net cost (or cost savings) to the GOE.	APR already has the following benchmark regarding planting materials: "The GOE will issue: (1) regulations and procedures on Plant Breeder's Rights in accord with the relevant Uniform Performance Variety (UPOV) convention, and (2) regulations for exclusive release of new seed varieties and inbred lines to private companies and cooperatives. These regulations will include a competitive bidding process with safeguards to insure that one firm cannot gain access to a large percentage of new

AREA/CONSTRAINT	POSSIBLE APRP ACTION	POSSIBLE APRP BENCHMARK
		varieties." The benchmarks below will implement Delouche's recommendations regarding the horticultural sector. MALR will modify vegetable and fruit planting material registration by requiring in-country testing only for strategically important crops as defined in the Delouche report. Vegetable seed companies will register all other planting material on the basis of pro forma registration and performance data from other countries or pre-registration trials. MALR will establish a regulatory framework for the nursery industry with the objective of insuring the provision of high quality and properly identified varieties. Implementation of this framework will include the use of modern techniques for variety identification.
Plant Quarantine and Customs procedures result in untimely release of imported planting materials.	Identify the causes of delays in releasing planting materials at Plant Quarantine and Customs. Develop recommendations to streamline the procedures	MALR will establish a "Release by" date program for Plant Quarantine and Customs tied to the arrival date of the materials in Port.
GOE tariffs on imported planting materials increase their cost approximately 25%	Pursue elimination of import tariffs on planting materials. This will require an	GOE will eliminate the tariff on imported planting material.

AREA/CONSTRAINT	POSSIBLE APRP ACTION	POSSIBLE APRP BENCHMARK
thereby increasing the cost of domestic produce and detracting from Egypt's comparative production advantage in export markets.	analysis of the lost revenue impact on the GOE and possible means by which this loss might be offset.	
Pesticides GOE regulations on pesticides – including testing and registration procedures and import bans – do not allow horticultural producers timely and open access to the most recent technology in safe and effective pesticides.	Continue implementation of current activities to liberalize pesticide availability and use. Insure that these procedures include streamlining the decision-making process and appropriate regulations and implementing procedures for human and consumer safety. Review to determine if pesticide availability in the market can be achieved before the current target date. In conjunction with HEIA, provide a forum exchange of information and ideas between the private sector and the MALR sub-committee developing implementing regulations for the new pesticide law.	Existing benchmark: "The GOE will revise and reissue open and transparent regulations to register pesticides and will issue regulations to license pesticide companies and applicators. The benchmark will be completed by June 30, 2000." The MALR will streamline the procedure for pesticide registration by the Pesticide Review and Recommendations Committees including approval of new pesticides by majority (rather than unanimous) vote. The MALR will complete testing and registration procedures within three years. If action is not taken within this time the individual pesticide is automatically approved for use within Egypt.
Lack of coordination between various	Work with the Ministries of Agriculture &	The Ministries of Agriculture & Land

AREA/CONSTRAINT	POSSIBLE APRP ACTION	POSSIBLE APRP BENCHMARK
GOE Ministries results in disjointed regulation of agricultural, household, and industrial pesticides. This leads to inappropriate and potentially dangerous use of household and industrial pesticides on agricultural crops.	Land Reclamation and Human Health and possible the Ministries of Industry, Labor, Environment, and Water & Public Works to integrate agricultural, household, and industrial pesticide registration, licensing, and policing regulations. This will require RDI to document current registration and enforcement policies and procedures and develop recommendations for a consistent and integrated program to replace them.	Reclamation, Human Health, Industry, Labor, Environment, and Water & Public Works will establish a uniform national policy and implementing regulations for the registration, licensing, and distribution of agricultural pesticides by private companies.
MALR's annual planning and quota system to "guarantee" an adequate agricultural pesticide availability adds a costly and unnecessary layer of bureaucracy to pesticide regulation and probably works against its very objective by causing delays in required imports exceeding approved quota levels.	Work with MALR to eliminate the import planning and quota system now in place to "guarantee" the availability of an adequate supply of pesticides. This will require RDI to document the existing program, its costs to the public and private sectors, and the benefits to be gained from its elimination.	The MALR will eliminate its system of agricultural pesticide import planning, quotas and licenses and allow open importation of agricultural pesticides by private companies.
The GOE is in the process of establishing maximum residue levels (MRLs) for pesticides and heavy metals. Adoption of inappropriate MRLs would have a deleterious effect on Egyptian horticultural exports.	Work with the Egyptian Organization of Standardization, the Pesticides & Heavy Metals Residue Testing Laboratory, and the horticulture sector including processors to assure that Egyptian residue standards parallel those of important export markets for Egyptian fresh and processed fruits, vegetables, and herbs. This will require	The GOE will establish standards for maximum residue levels in Egyptian food products that are fully integrated with those of major export markets for Egyptian fresh, dried, and processed foods and herbs.

AREA/CONSTRAINT	POSSIBLE APRP ACTION	POSSIBLE APRP BENCHMARK
	RDI to document standards in current and potential export markets, facilitate meetings between the various Ministries and the horticulture sector (including food processing) and perhaps support coordination between the GOE and other countries.	
Import tariffs on agricultural pesticides significantly decrease Egypt's comparative production cost advantage for export horticultural crops.	Pursue the elimination of import tariffs on agricultural pesticides. This will require RDI to quantify the resulting net revenue loss, accounting for the change in import quantities and values, and hence import duties from the liberalization of pesticide registration and licensing, as well as increased revenues from expected increases in exports due to increased price competitiveness.	The GOE will eliminate the import tariff on agricultural pesticides.
Soil Nutrients Analyses by a private horticultural company indicate that selected soil nutrients are being taken out of Egyptian soils faster than they are being replaced. This is a result of the High Aswan Dam preventing the flooding which previously distributed these nutrients.	Study the situation with regard to the efficacy, use, and depletion of soil nutrients, especially in the Nile Delta. If soil nutrient depletion is shown, determine the incremental cost of adding these nutrients to the soil, either directly or through mixed fertilizers.	The GOE will test yield and qualitative impacts of adding selected soil nutrients to soil. If effective, GOE will act to make such nutrients available within Egypt and promote their use by eliminating import tariffs on these products and through the educational activities of its Extension agents.

AREA/CONSTRAINT	POSSIBLE APRP ACTION	POSSIBLE APRP BENCHMARK
Import tariffs on mixed fertilizers and fertilizer ingredients reduce the use of fertilizers by low-income farmers and decrease Egypt's comparative production cost advantage in export marketing.	Pursue the elimination of import tariffs on imported fertilizers and fertilizer raw materials. RDI should assess the impact on GOE tariff revenues and agricultural production resulting from the removal of tariffs on these products.	The GOE will eliminate all tariffs on imported fertilizers and fertilizer raw materials.
Agricultural Technology Transfer MALR Extension activities do not provide adequate services to the horticultural sector.	Establish a private extension service for horticultural products in one Governorate as a test of private system feasibility. Coordinate contacts between the private extension service and GOE research organizations to address technical problems discovered. APRP will determine the effectiveness of these organizations in addressing production agriculture issues and possible modifications needed to increase their effectiveness.	The MALR will implement a plan to allow establishment of a private sector agricultural extension service for horticultural products in a Governorate selected by MALR and APRP. The plan will be developed and implemented in accordance with previously achieved and proposed APRP benchmarks.
Post-Harvest Handling Post-harvest losses of domestically marketed produce are extremely high. These losses increase consumer costs, virtually eliminate the possibility of small farmer participation in serving export	Examine the feasibility of using returnable plastic crates for packing and transporting produce to domestic markets. If the project appears feasible, promote it to potential investors in the private sector. If	The GOE will eliminate import duties and establish a tax holiday for a pilot project to import and promote the use of returnable plastic crates for packing domestic market produce.

AREA/CONSTRAINT	POSSIBLE APRP ACTION	POSSIBLE APRP BENCHMARK
markets, and waste valuable production land for the required overproduction to meet domestic demand. These losses result from use of palm rib crates for shipping and the lack of a cold chain.	tax incentives are necessary to make the project attractive, negotiate with the GOE. Work towards eliminating tariffs and sales taxes on all modern post-harvest handling systems. Analyze the feasibility of establishing modern cooling facilities in major areas of horticultural production for domestic markets. If feasible, promote to potential investors.	 The GOE will eliminate tariffs on pre-cooling equipment, field and transport packing containers, and equipment needed for modern grading and packing facilities. The GOE will eliminate tariff and sales taxes and establish a tax holiday for modern cooling facilities in small farmer horticultural production areas for domestic market produce.
Transportation – Refrigerated Trucks High import tariffs on refrigerated trucks have forestalled the development of an Egyptian refrigerated truck transport capability.	Pursue eliminating import tariffs on refrigerated trucks and spare parts. RDI will determine the impact of tariffs on the cost of imported refrigerated trucks, their availability, freight rates, and GOE revenues.	The GOE will eliminate import tariffs on refrigerated trucks, refrigerated truck components, and refrigerated truck spare parts.
Egyptian and regional restrictions on cross-border trucking have prevented the development of a low cost, timely trucking industry within Egypt and regionally. Pursue the elimination of restrictions on the use of non-Egyptian trucks to haul	Pursue eliminating restrictions on the use of non-Egyptian trucks to haul products to, from, and within Egypt. The GOE might have to pursue this with regional government ministries. APRP could provide analytical support for proposed	The GOE will eliminate all restrictions on the transport of goods to, within, and out of Egypt by non-Egyptian trucking companies.

AREA/CONSTRAINT	POSSIBLE APRP ACTION	POSSIBLE APRP BENCHMARK
products to, from, and within Egypt.	GOE unilateral actions and/or regional government negotiations.	
Transportation – Sea		
Time-consuming Customs clearance procedures result in crowding of container port terminals.	Starting with Alexandria, identify the sequence of activities required for Customs clearance of imported goods at all ports. Prepare a procedure that streamlines the process.	Incoming containers will clear Customs within seven working days. Cargoes not receiving clearance within this time will be automatically released.
Implementing plans to privatize port services has been slow, resulting in continued inefficiencies in services provided by GOE port service monopolies.	Identify the schedule for privatization of ports and port services and/or allowing the establishment of competing private sector providers at all ports. Provide private sector interests with the information necessary to lobby for its implementation. Consider the possibility of separating services now offered jointly at the main Port of Alexandria and its extension at Dekheila.	The GOE will privatize its ports and privatize or open all port services to private sector companies via the following schedule: Service Alexandria Port Said Etc. Agencies completed date date Stevedoring date date date Customs date date date Containers date date date Etc. date date date
Container port handling might be slowed by insufficient unloading and loading equipment, especially gantries.	Determine whether additional gantries and/or other equipment and facilities are needed at the ports. APRP would work with shipping companies to identify slowdowns in unloading and loading caused by gantry breakdown/unavailability	Additional gantries will be installed in the Alexandria container port.

AREA/CONSTRAINT	POSSIBLE APRP ACTION	POSSIBLE APRP BENCHMARK
	and an analysis of the increase in fees resulting from increased investment in needed facility improvements.	
Foreign vessels are charged higher berthing fees than are Egyptian flag vessels. This detracts from the attractiveness of Egyptian ports as ports of call by the foreign vessels most likely to sail to horticultural export markets.	Determine what differences exist in berthing and other port fees for foreign and Egyptian flag vessels at all ports.	Uniform port fees will be charged to all vessels regardless of flag.
Transportation – Air Airfreight charges to Egypt's European export markets are high relative to rates from other regional airports and in comparison to sea freight rates.	Determine the approximate cost of transporting produce from Cairo to target markets. This information will be useful to HEIA in approaching airlines for negotiation purposes.	Egypt Air will adopt air cargo rates for fresh fruits and vegetables that represent a reasonable mark-up from its costs.
Available cargo space for shipments to European markets is insufficient to meet demand.	Assess Egypt's Open Skies policy and advocate that any charter or liner may fly to and from Cairo from any airport provided there is terminal space available.	The GOE will increase the tonnage of fresh fruits and vegetables from x tons to y tons in 2000. The GOE will grant landing rights to any cargo aircraft to its international airports at reasonable costs.
The GOE cooling facility at Cairo International Airport is inadequate for the quality assurance needs of fresh produce	Complete the policy analysis aspects of the HEIA-commissioned study to determine the cold storage situation at Cairo	The GOE will allow private ownership/operation of cold storage facilities at Cairo International Airport.

AREA/CONSTRAINT	POSSIBLE APRP ACTION	POSSIBLE APRP BENCHMARK
shipments.	International Airport. If the study determines that a private company may not operate within Airport grounds, work for a change in this policy. Insure that any new or upgraded facilities at the Airport be undertaken by the private sector, and that the current GOE facility be privatized or, if it cannot be rehabilitated at reasonable cost, torn down.	This will include the existing facility either as is or in conjunction with an upgrading project.
Existing individual exporters have insufficient volume to justify securing air charters.	Encourage ATUT/HEIA to study the feasibility of cooperative chartering by Egyptian produce shippers, to identify air freight consolidation companies that can provide service to Egyptian air freight companies, and to lobby for the reduction of air shipment cargo weight minimums.	
There is a great deal of misinformation among exporters about air freight shipment rates, availability, and industry problems.	Coordinate meetings between HEIA and airline companies to disseminate up-to-date information and encourage discussion regarding air transport service issues and improvements.	
Food Processing		
Import tariffs on equipment, ingredients, and materials required to produce processed foods for export markets	Pursue the reduction or elimination of import tariffs on machinery, materials and ingredients most used by food processors	The GOE will eliminate tariffs on imports of food processing equipment, ingredients, and packaging materials that are important

AREA/CONSTRAINT	POSSIBLE APRP ACTION	POSSIBLE APRP BENCHMARK
significantly increase the cost of producing these products.	to manufacture export products (e.g., freezing equipment and packaging materials). APRP would identify relevant items for the exclusion and analyze the impact on GOE revenues.	in the production of export-oriented products.
Egyptian food processors have little incentive to produce for export markets because tariffs on imported products allow them to maintain high margins without meeting export quality standards.	Work towards eliminating import tariffs on food products and ingredients for food products that are a consumed by most Egyptians.	The GOE will eliminate import tariffs on selected food products.
Taxes The GOE possibly imposes a tax burden on agriculture and agribusiness that is higher than that of competing export countries, thereby reducing or eliminating Egypt's comparative advantage.	Identify and quantify taxes affecting the production and export marketing of Egyptian agricultural crops – horticultural, cotton, rice, planting seeds, groundnuts.	The GOE will establish a tax holiday for companies entering the horticultural export trading business by a specific date.
	Determine the impact of taxes on horticultural crop exports from Egypt and major competing countries on Egypt's competitive position in target markets.	The GOE will forego all Customs' duties normally levied on plant, equipment and supplies required to establish and operate horticultural export business for companies entering the business by a specified date.
	Determine benefits to be gained by Egypt from reduced tax levels on Egyptian horticultural exports – new jobs created, increased foreign exchange revenues, incremental taxes generated.	The GOE will modify other specific tax levies to maintain Egypt's comparative horticultural produce production cost advantage in international markets.

AREA/CONSTRAINT	POSSIBLE APRP ACTION	POSSIBLE APRP BENCHMARK
	Formulate one or more proposals for tax relief for HEIA to advocate to the GOE. HEIA/APRP could share the information developed above with other crop export associations to create a broad-sector coalition seeking tax relief in the agricultural sector. Note: The above actions may also draw support from USAID's CIPE, and DEPRA projects.	

INTRODUCTION

Sector Overview

Egypt's primary agricultural sector accounts for approximately 20% of total gross domestic product and 35% of the total work force. The impact of agricultural commodity processing and trade increases these measures of total sector importance significantly. Agricultural exports account for almost one-fourth of total exports, with cotton itself accounting for almost three-quarters of this amount. Only 5% of fruit and vegetable production is exported with potatoes and citrus the principal export crops. Non-traditional high value crops such as grapes, strawberries, mangoes, and melons have significant export potential.

In 1996 horticultural crops accounted for 28% of the total value of plant, animal and fish production, 41% of the total value of plant production. Total 1996 horticultural crop area and value are summarized in Table 1. The data also show the high value of horticultural crops. While vegetables were planted on only 10. 5% of total feddans planted, vegetable production accounted for 18.3% of the value of total plant production. The figure is even more impressive for fruits, where 7.6% of the total land planted yielded 21.7% of the total value of plant production.

Table 1.
Horticulture Crop Production Area and Value, 1996

	Value		Crop Area	
	000 LE	% of Planted Crops	000 Fed.	% of Planted Crops
Vegetables and Seeds	6,970,326	18.3	1,441	10.5
Fruits	8,267,858	21.7	1.,048	7.6
Medicinal & Aromatic Plants	472,548	1.2	64	0.5

Source: Agricultural Economics Central Administration, MALR, Agricultural Statistics Abstract, November, 1998

The land: value ratio is especially important because most horticultural production is on small farms. Clearly, the relatively high value of horticultural crops and the ability to grow them on small plots with a minimum of equipment are a major factor in the economic life of small farmers.

Egypt's ability to produce fruits and vegetables at relatively low cost is also important to the Egyptian diet. As shown in Table 2, they rank only below cereals in importance. Were fresh produce not available in the quantities and prices at which Egyptian farmers produce them, the Egyptian diet would be less nutritionally balanced.

Table 2.
Annual Per Capita Food Consumption

Item	Kg.	Item	Kg.	Item	Kg.
Cereals	283.1	Milk	68.5	Meat	10.6
Vegetables	119.2	Roots/Tubers	25.7	Legumes	9.2
Fruits	86.4	Oils/Nuts	20.7	Fish	8.0
Sugar/Honey	70.6			Eggs	2.9

Source: Agricultural Economics Central Administration, MALR, Agricultural Statistics Abstract, November, 1998. No date given for the consumption numbers; however, they are generally close to CAPMAS data for 1993.

Fruit and vegetable farming has also experienced rapid expansion in recent years, both in area planted and volume of production. The rapid increase in acreage and production beginning in 1993 results from rising incomes and therefore rising demand. (Haagsma, page 13). Fruit acreage and production, too, has increased, but this was due primarily to plantings in the mid to late 1980s which came into production in the mid 1990s. Total fruiting acreage as a percentage of total fruit acreage has steadily increased from 76% in 1990 to 89% in 1996.

Table 3.
Planted Area and Production, Major Crops, 1990-1996

	1990	1991	1992	1993	1994	1995	1996
Vegetables (a)							
Area (000 feddans)	1,086	1,082	1,053	1,025	1,141	1,254	1,437
Production (000 tons)	9,542	9,578	9,986	9,596	10,994	12,075	14,254
Fruits (b)							
Area (000 feddans)	780	842	832	824	844	844	866
Production (000 tons)	4,094	4,122	4,104	3,556	3,748	4,163	4,435

(a) Major vegetable crops: potatoes, tomatoes, courgette, beans, white beans, sweet peas, green peppers, egg plant, cabbage, cauliflower, okra, molochia, artichokes, sweet potatoes, garlic, spinach

(b) Major fruit crops: citrus, grapes, bananas, mango, guava, pears, apples, pomegranates, prunes, peaches, apricots, and figs

Source: ATUT 1997 and Central Department for Horticulture, MALR as quoted by Doekele Haagsma, The Horticultural Sector in Egypt, Office of the Agricultural Counsellor, Royal Netherlands Embassy, 1997.

One reason for the importance of the sector is that horticultural crops, especially vegetables, are grown by hundreds of thousands of small farmers. This fact, and the above statistics, masks an important development that is taking place in the sector. This development is the establishment of large, often export-oriented farms or supply groups of smaller farms, especially in fruit. Concurrent with this has been the displacement of many small fruit orchards in the Delta by vegetables. These developments are rooted in the liberalization of the agricultural economy and farmers' realization of where their best profit opportunities lie. (Haagsma) Table 4 summarizes recent horticultural export data. Exports dropped as incomes and domestic consumption rose starting in 1993. They can be expected to increase in the future as domestic consumption needs are met and more recent export-oriented fruit plantings come into production.

Table 4.
Horticultural Product Exports, 1992-95

	1992	1993	1994	1995
		(000 tons)		
Major Vegetables	305	275	202	476
Major Fruits	NA	256	201	209

Source: ATUT 1997 and Central Department for Horticulture, MALR as quoted by Doekele Haagsma, The Horticultural Sector in Egypt, Office of the Agricultural Counsellor, Royal Netherlands Embassy, 1997.

Exports of processed horticultural products have not been significant. Except for frozen vegetables exports have been quite variable by major product category, probably reflecting opportunistic sales in periods of low raw material prices rather than a concerted effort to develop exports as a significant ongoing business. Table 5 summarizes export data for major product categories.

Table 5.
Major Processed Food Exports, 1990-96
($ million)

	1990	1991	1992	1993	1994	1995	1996
Dried Vegetables	12.3	9.5	15.2	12.7	2.2	1.8	1.3
Frozen Vegetables (a)	5.5	6.4	7.9	7.8	10.6	10.9	17.5
Fruit Juices (b)	4.5	4.5	1.2	1.5	2.2	2.5	2.1
Canned Vegetables (c)	2.9	2.2	1.2	1.5	1.8	0.8	3.1
Jams	0.4	0.7	0.3	0.3	0.7	0.5	5.2

(a) 1995
97 data is listed as Frozen Fruits & Vegetables
(b) 1995
97 data is listed as Fruit & Vegetable Juices
(c) 1995
97 data is listed as Canned Vegetables
Source: 1990
1993, CAPMAS as cited by Haagsma; 1995-97, ATUT

Study Objectives

Horticulture in Egypt has been less directly affected by GOE policies and activities than have other agricultural subsectors. In cotton, wheat and rice the government possesses production capacity, has set or heavily influenced prices, has restricted imports or exports, or otherwise been a visible participant in the market. While GOE direct involvement in horticulture is not as obvious, a 1996 report for USAID concluded that significant policy and regulatory issues constrain subsector growth. (Industry Diagnostics And Roadmaps to Increase Egypt's Export Performance. The Services Group, Inc. and SRI International). Key constraints and related policy issues noted in the report include:

1. Obtaining high quality, low cost timely inputs due to import Customs procedures, seed and planting material certification procedures
2. Airfreight costs due to air transport regulations reflecting monopoly control
3. Sea freight costs and timeliness due to port fee schedules and government control and regulation of maritime transport
4. Land transport costs, delays, and infrastructure problems: tariffs on imported transportation equipment, inadequate availability and standards of local equipment, insufficient road maintenance, and difficult border customs procedures
5. Production limitations due to land tenure restrictions
6. Hiring and firing difficulties due to labor policies and regulations
7. Barriers to foreign direct investment and technology transfer relating to business establishment policies and investment procedures.
8. Inadequate technology (production and processing) due to agricultural research policy

The Horticultural Export Improvement Association (HEIA) offers a more recent perspective on policy constraints. During a series of discussions the Agricultural Policy Reform Program's (APRP) Reform Design & Implementation unit (RDI) encouraged HEIA's Board of Directors to assist RDI in focusing its horticultural subsector policy analysis. HEIA's response was to prioritize its policy concerns in four areas and to establish task forces for each. The four areas are transportation, pesticides, taxation, and intellectual property rights. HEIA requested RDI to assist its task forces to focus on the key policy constraints in each of the four areas and to assist in the design of lobbying action plans which can be implemented by HEIA's Advocacy Committee.

In addition to working with the HEIA task forces RDI decided to organize a short-term technical assistance project with the following purposes:

1. To examine comprehensively the key policy constraints as prioritized both by HEIA members and those mentioned in the 1996 report with a view to developing a plan of work to address them in the policy reform program and

2. To examine the institutions involved in horticulture to determine if there is a need to provide assistance to these institutions to promote development of the subsector.

The results of this analysis are to contribute to the 1999/2000 RDI work plan and to help develop benchmarks for APRP's Tranche 4 Memorandum of Understanding.

This report presents the findings of the STTA project. The consulting team's summaries of issues developed in the HEIA task force meetings are presented in Appendix A. The main report summarizes the principal constraints identified through the wider process described below.

Methodology

The principal method used by the consulting team was an extensive interview and meeting program with industry participants. In addition to the four HEIA task force meetings, a broad range of officials and executives involved in one or more facets of the subsector were interviewed in depth. The interview contacts included business executives in private sector and GOE-owned corporations, agricultural cooperatives, industry associations and consultants and GOE officials working in the horticultural subsector. Business activities covered by the interviews included farming, domestic trading, export marketing, food processing, cold storage, trucking, and air and sea transport services. Approximately 70 people were interviewed and/or involved in HEIA meetings. A complete list of interviewees and HEIA task force meeting participants is included in Appendix B.

As background for its work the consulting team reviewed a number of reports on Egypt's horticultural subsector. Also reviewed were World Bank and U.S. Agency for International Development publications on export development programs.

The number of meetings and interviews did not allow the consultants as complete a crosscheck as would have been accomplished in a project of greater depth. In general the constraints cited in the report reflect what the participants told the consulting team. Cross checks were made between interviewees, however, and the consulting team believes sufficient accuracy and depth was achieved to meet the project's objects of identifying issues for possible RDI development.

Acknowledgements

Joseph T. Pietrus, an agribusiness marketing specialist on assignment from Development Alternatives, Inc. (DAI) of Bethesda, Maryland, headed the consulting team. DAI is USAID's contractor for the RDI component of APRP. Dr. Hassan Abdel Ghafour El Abbassy, an agricultural economist and agribusiness consultant who is also on the faculty of Cairo University assisted Mr. Pietrus. RDI staff participating in the project work were Mr. Richard J. Magnani, agribusiness policy specialist, and Dr.

Mohamed Zaki Gomaa, agribusiness marketing policy specialist, who is also on the faculty of the University of Zagazig. As the project team leader and principal author of this report, Mr. Pietrus wishes to acknowledge the efforts of the project team, without whose assistance the project could not have been completed. The project team wishes to acknowledge the APRP RDI staff headed by Dr. Max Goldensohn for their contributions of information, assistance in the analysis, and arrangement of all logistical matters required in the course of the project. Above all we wish to thank the many government and industry people who gave so generously of their time and knowledge in developing the factual basis for our analysis and report.

CONSTRAINTS TO THE DEVELOPMENT OF THE HORTICULTURAL SECTOR

In late 1995 The Services Group, Inc. and SRI International conducted a survey of the horticulture and processed foods sector to identify constraints to increasing Egypt's exports of both fresh and processed horticultural products. In line with APRP's mandate the scope of coverage for this survey was expanded to include the domestic horticultural products sector. Significant constraints were identified in the areas of market information, planting materials regulation, pesticide regulation, agricultural technology transfer, post-harvest handling, transportation, food processing, and possibly taxes. We did not find significant constraints in soil nutrient availability but we have included a brief comment on this area. We did not find significant constraints in some areas identified by TSG/SRI, namely locating buyers, employment issues, meeting market quality standards, and meeting environmental standards, although the latter could change with the advent of the Ministry of Environment. We believe this reflects the dynamic nature of development in the horticultural sector, and apparently in Egypt in general, with the resulting shifting of constraints as individual problems are identified and addressed.

Changes since the TSG/SRI report are mainly in constraints in transportation, ability to meet export quality standards, and difficulties associated with foreign direct investment. Transport availability has increased regularly in scheduled air cargo space, sea transport space available out of Alexandria, and refrigerated container availability. This is not to say problems do not remain. They do, and transportation availability and cost is the major problem the sector faces. The quality of export products is increasing as a result of technology transfer assistance provided by USAID's Agricultural Technology Utilization & Transfer (ATUT) project, the establishment of the Horticultural Export Improvement Association, and the availability of buyer technical assistance. Much remains to be achieved but export growers do not consider this a major issue. Numerous barriers to foreign direct investment have been eliminated and those that remain, with the exception of land acquisition, are probably negotiable particularly as they relate to GOE priority projects. At this point in the development of Egypt's horticultural sector we also question whether foreign direct investment is needed. Technical assistance agreements may serve Egyptian companies just as well and there appear to be no major barriers in this regard.

Changes are occurring in the governance of the economy with great rapidity and some unpredictability. The ability of GOE Ministers to make changes by decree rather than going through a public process appears to be a factor. While this facilitates action, especially with regard to private sector needs, it also leads to misinformation in the market place. For example, three different organizations with a vested interest in the refrigerated trucking business gave us four different tariff rates for imported refrigerated trucks. There were major differences in the rates given - 70%, 20% , 45% and 5%. (45% is stated in the tariff code book, but the 5% rate is reportedly under consideration by Parliament.) We received conflicting information about air transport. One party informed

us that there is a tariff of 30- 40% on IQF equipment for an export-only plant while another party told us such a plant qualifies as a free zone with no tariff on capital equipment. Conflicting information and misinformation in the market place can inhibit further development of the horticultural sector. We therefore encourage APRP to make private associations aware of validated information it uncovers as a result of this report and follow-up actions, so that this information can be disseminated throughout the private sector. The Horticulture Export Improvement Association, Egyptian Seed Association, Egyptian Export Promotion Centre, the Egyptian Exporters Association, and the organizations working with the Center for International Private Enterprise are all candidates for this information.

One recommendation made repeatedly is to eliminate import tariffs. Although such taxes remain among the easiest to collect in Egypt and account for approximately 20% of GOE revenue, the elimination of some existing tariffs will have little impact on GOE revenues because the tariff level severely restricts current import activity. As to the others, it seems only good policy to reduce the tariffs, allowing exporters to capitalize on comparative production advantages, leading to increased investments in the cold chain infrastructure, and resulting in lower prices to consumers. While the potential for reduced GOE revenues from tariff elimination exists, such reductions will be partially offset by increased sales tax collections if imports do increase. It will therefore be necessary for APRP to quantify the net effect of tariff elimination for the individual recommendations presented.

The following pages present our findings as well as suggestions for possible APRP actions and benchmarks. The sequence is generally that of farm to market and is not in order of severity of the constraints. Suggestions for possible APRP actions and benchmarks are not presented as recommendations, but rather as ideas for APRP's consideration.

FRESH PRODUCE MARKET INFORMATION

Information is the basis on which farmers, traders and food processors identify and develop domestic and international market opportunities. There are limitations in the amount of information that is disseminated to each of these market chain participants. In the domestic market, primarily traders, especially at the wholesale level in major markets know fresh produce information. Daily price information from four major markets is gathered and disseminated to farmers via evening television programs and four daily newspapers through a USAID program implemented by ACDI. It is not known what percentage of farmers this information reaches. There is no program, either donor-funded or in the MALR, to provide farmers analytical information on seasonal and annual production trends.

International market information has been lacking throughout the production distribution chain. However, progress has been made through Egyptian organizations and

donor-funded projects to provide this information to food processors (via Egyptian organizations) and large growers and exporters (via donor-funded organizations). The Processed Foods section of this report includes information relative to processed products.

Constraints

Daily market information from four principal markets is being gathered and disseminated by ACDI. Since this is not a permanent project, it will be necessary that upon its completion a structure be in place to absorb and expand the service. It is unknown how many of Egypt's small farmers actually receive the information. Selected television stations and daily newspapers carry it. MALR Extension offices supposedly receive it from MALR but not all do. Farmers do not receive any analyses of daily or seasonal market prices and activity, or any information that relates prices and product quality. Without this information they do not know if traders are offering fair prices to them. Consequently, they make planting decisions on nothing other than personal memory of historical prices and returns and/or tradition.

In Egypt, there is limited knowledge of international markets and what it takes to serve them in terms of variety, quality, market windows, shipment, and price. While it appears this level of knowledge has increased significantly since the ATUT project, it is narrowly held among a small number of major export companies. Within these companies such knowledge does not permeate the organization in all of the operations that bear on the ability to competitively serve export markets. This is less of a policy constraint than it is one of outreach by export promotion organizations and is covered in this report's section on Institutional Support Mechanisms.

The basic elements of a price reporting system are in place, needing only organization to establish it on a permanent basis and expansion to include seasonal and annual analyses. In addition to market prices collected by ACDI the Agricultural Research Center has been provided a grant from the U.S. Embassy Agricultural Section for the collection and dissemination of farm gate prices. Information from international markets is available on a weekly basis from the WTO International Trade Centre in Geneva. ITC also provides seasonal analyses. MALR publishes Egyptian production data and USDA international production, consumption, and outlook data.

While the lack of an adequate market information system, especially for small and medium size farmers, is not a policy constraint per se, one solution does require a policy decision by the GOE to vest at least some market information reporting in the private sector.

Possible APRP Actions

1. Develop a recommended private sector system to gather and disseminate price and trade information on fresh horticultural products at major domestic and export terminal

markets. This will require determining current price information system activities in Egypt by the GOE and by others, including donor-sponsored initiatives. Options for integrating these separate initiatives into a unified, sustainable system will have to be developed and evaluated. Key elements of the new system should include: (1) implementation by a private organization rather than GOE; GOE-approved access to domestic terminal market information; dissemination through a broad array of organizations in production areas (e.g., television and radio stations, newspapers, GOE Extension offices, cooperatives, agricultural input supply outlets, and Governorate offices); and (2) crop budget and seasonal analyses and training seminars for Extension agents on effective use of this information. Analytical aspects of this work are candidates for APRP funding. The field portion of the project probably requires initial funding by USAID with a schedule for funding assumption from Egyptian sources. Long-term funding might come from a small cess levied on trades at wholesale markets and on export sales. Market information studies such as those performed by the NARP and ATUT projects for export crops should not be funded by the government but on a cooperative basis by private organizations.

2. If successful the system can be extended to other crops.

Possible APRP Benchmark

The GOE will support the formation of a private sector market information service for horticultural products by providing access to GOE sources of market information including but not limited to MALR gathered data, GOE wholesale markets, and the WTO International Trade Centre.

INPUT AVAILABILITY

Most growers are unable to obtain high quality, efficient inputs on a timely basis if at all. This is evident with planting material, pesticides, and soil nutrients. Except for large growers/exporters, existing import restrictions, tariffs, registration procedures, and distribution practices prevent this with regard to planting materials, pesticides, and certain soil nutrients. These practices increase input costs, constrain yields, increase health risks for farmers and consumers, and put producers/exporters at a competitive product disadvantage in export markets.

PLANTING MATERIALS

Constraints

Growers should have timely and free access to quality planting materials which meet market needs. Except for the large growers/exporters who can obtain MALR exemptions and modified procedures on a selected basis, they do not. Availability is a

problem because of government registration procedures. These practices have been discussed in detail in a recent APRP report on the seed subsector "Legislative, Regulatory, and Service Framework for the Egyptian Seed Industry", Report 30, March, 1998. Delouche cites two major problem areas in the vegetable seeds: "the required variety testing and registration before seeds can be produced or introduced and marketed; and requirements and regulations pertaining to seed imports and exports including the phyto-sanitary provisions of the plant quarantine regulations." In fruits this is a problem only with strawberries. However, he notes, "the production and marketing of seedlings, root stocks, scions and other planting materials ... is essentially unregulated" and can result in unscrupulous seedling and nursery stock companies producing and marketing mislabeled planting stock.

Delouche recommends changes, which the growers/exporters we interviewed endorse, namely, "registration based on pro forma evidence of registration and protection granted in other countries, and on performance data from other countries or pre-registration trials by vegetable seed companies." This will allow Egyptian producers to introduce improved varieties and varieties in demand in export markets in a time frame comparable with other countries, thereby better serving Egyptian consumers and allowing export growers and traders to be more competitive. The experience of strawberry growers/exporters illustrates the benefits this will bring. When a new variety is developed abroad, it takes about two years for runners to become available to growers. Egyptian variety testing takes 3-4 years followed by one year to achieve production - a total of 4-5 years before Egyptian product enters the market. By contrast, Moroccan strawberries are in the market in 2-3 years, Spanish product in 1 year. Thus, Egyptian producers lag behind their competitors in establishing a market position.

Plant quarantine regulations can delay the release of seeds beyond the planting time. At times this is hindered by Customs delays as well. An example is the grower we met whose seeds arrived in August but were cleared only in mid-November, too late for the planting season. Because the procedures are not consistently applied, simply purchasing seeds earlier cannot always solve this problem.

An unregulated nursery industry can result in the sale of planting materials that have been misrepresented. This is especially harmful in the case of fruit trees and other planting materials that require significant investments in money and time before initial harvest. In such cases the grower learns only years later that he has planted a variety he did not want. This may result in having fruit that does not fit the market he has targeted, lower yields, and unexpected disease problems.

Additionally, the cost of imported planting materials is increased by approximately 25% of CIF value due to imposition of a 10% tariff, 10% sales tax, 3% stamp tax, and other fees approximating 1-2%. These taxes add to the cost of essential domestic food products and detract from Egypt's comparative production cost advantage for export crops.

Possible APRP Actions

1. Implement the policy and regulatory recommendations in the Delouche report. This may require RDI to commission additional short-term consultancies to recommend implementing procedures and regulations and to complete a cost-benefit analysis quantifying the net cost (or cost savings) to the GOE.

2. Identify the causes of delays in releasing planting materials at Plant Quarantine and Customs. Develop recommendations to streamline the procedures. This might include automatic "Release by" dates tied to arrival in port dates.

3. Pursue elimination of import tariffs on planting materials. This will require an RDI analysis of the lost revenue impact on the government and possible means by which this loss will be offset (e.g., increased income taxes from the expanding produce export industry). Elimination of the sales tax for export type planting material would be desirable but is impractical to implement.

Possible APRP Benchmarks

1. APRP already has the following benchmark regarding planting materials: "The GOE will issue: 1) regulations and procedures on Plant Breeders' Rights in accord with the relevant Uniform Performance of Variety (UPOV) convention; and 2) regulations for exclusive release of new seed varieties and inbred lines to private companies and cooperatives. These regulations will include a competitive bidding process with safeguards to ensure that one firm cannot gain access to a large percentage of new varieties." Benchmarks 2 and 3 below are needed to implement Delouche recommendations regarding the horticultural sector.

2. MALR will modify vegetable and fruit planting material registration by requiring in-country testing only for strategically important crops as defined in the Delouche report. Vegetable seed companies will register all other planting material on the basis of pro forma registration and performance data from other countries or by pre-registration trials.

3. MALR will establish a regulatory framework for the nursery industry with the objective of insuring the provision of high quality and properly identified varieties as recommended in the Delouche report. Implementation of this framework will include the use of modern techniques for variety identification.

4. MALR will establish a "Release by" date program for Plant Quarantine and Customs tied to the arrival date of the materials in port.

5. GOE will eliminate the tariff on imported planting materials.

PESTICIDES

Constraints

Growers should have timely and free access to the most recent technology in safe and effective pesticides. They should also have access to appropriate application equipment and be provided label information regarding application procedures that are safe for both applicators and produce consumers. Current GOE registration and licensing procedures effectively ban the use of pesticide technology developed after the late 1980s or earlier, which technology is safer and/or more effective than those products now in use in Egypt. Labels do not always provide the farmer information needed for the safest application in terms of both in-field application techniques and guarding against pesticide residues. These policies and regulations increase production costs, result in smuggling of unavailable and inappropriate pesticides into Egypt, increase health risks for both farmers and consumers, and could lead to future bans on Egyptian products in export markets. This situation may also have prevented additional multinational pesticide companies from entering the Egyptian market, thereby restricting competition and the availability of effective pesticides.

Current GOE regulations require a three-year field trial period to test the efficacy of proposed new pesticides. In practice this period is extended to as long as seven years due to the overly restrictive protocol involved because there is no time limit on pesticide review approval procedures as exists in other countries. For example, if trials are being conducted at a number of stations and it is learned that the protocol was not followed exactly at one of the stations, or if one station's results are negative while all others are positive, the entire process must be repeated.

Once a new product is registered it is possible that GOE action may preclude its import. For example, in 1996 HE MALR Minister Wali issued a decree prohibiting issuance of import licenses for most pesticides categorized as B and C by the U. S. Environmental Protection Agency. B and C pesticides are "probably carcinogens" and "possibly carcinogens" respectively. Other countries, most notably the U.S. and EU countries, allow use of some of these pesticides either freely or on a licensed/restricted basis. We are told the effective ban was imposed because it is believed that the majority of Egyptian farmers do not know how to apply pesticides in a safe manner either for themselves or to prevent pesticide residues. Because of this MALR has a goal of reducing pesticide use in total. This has achieved some success. The Ministry recently signed an agreement with the Government of the Netherlands for a technical assistance program to further reduce pesticide use. MALR believes that large farmers targeting export markets do know proper application procedures and they receive special exemptions from HE Minister Wali to import and use the products on export crops. These pesticides are imported exclusively through EMIPAC, which has complete control over pricing.

There are no effective substitutes for some of the banned B and C pesticides and poor substitutes for others. This has led to the introduction of other chemicals, often

smuggled, which are probably as dangerous, if not more so, than the banned B and C chemicals. During a visit to an agricultural chemical company we were shown products purchased in the Egyptian market that had been smuggled into the country. We were shown pesticides that did not have ingredient and/or application information on the label. We saw household pesticides approved by the Ministry of Human Health which were sold for agricultural applications. We were shown "pesticides" for which no ingredients were listed. The exporters probably do not use B and C pesticides that are not acceptable in their export markets. To do so runs the risk of losing one's export business. One European buyer that provides inputs to its growers does not use any non-fertilizer chemicals except on an as-needed basis to correct specific problems. Others inspect their Egyptian suppliers to verify correct pesticide use. However, should produce from smaller and/or opportunistic sellers into export markets be found to contain smuggled pesticides that are banned in export markets, it is possible that Egypt will be faced with bans on its produce, and surely the reputation of the country as a supplier will suffer irreparably.

Dr. Salwa Doghiem, Director of the Agricultural Research Centre's Laboratory of Residue Analysis of Pesticides & Heavy Metals in Food, informed us that the Egyptian Organization for Standardization (Ministry of Industry) is responsible for establishing maximum allowable limits for pesticide residue in agricultural exports. Its deliberations work along the lines of CODEX. None of the exporters we interviewed indicated any awareness of this activity or of the development of such standards. Most operate from standards specifically established by their buyers, or by the countries to which they export. Dr. Doghiem also indicated that they are starting to establish standards for the domestic food industry. Growers we interviewed are unaware of any such activity for fruits and vegetables. It is important that the establishment of such standards and appropriate testing procedures be fully integrated with those of principal export destinations for Egyptian crops.

The GOE is a signatory to the United Nations Food & Agricultural Organization convention on pesticide labeling. This convention requires all pesticide containers sold at retail to contain information on its use, including but not limited to application rate, maximum application, and pre-harvest interval. Egypt is also a signatory to the World Health Organization convention requiring full content disclosure; MALR includes only the toxic items. The pesticide manufacturer in the form of a recommended label supplies the required information. A major pesticide importer/distributor stated that up to seven people in MALR review pesticide labels and it is not unknown for the label recommended by the manufacturer to be modified to delete maximum application information or a change in pre-harvest interval. There is a difference of opinion on the appropriateness of this, however. Dr. Doghiem stated that pesticides degrade more quickly in Egypt's high ultra-violet light climate and therefore pre-harvest intervals can be shortened without adverse residue effects and must be shortened or the quality of the produce will suffer.

Ministry of Human Health registration procedures for household pesticides require four to six months to complete, and there are no import licensing fees or quotas.

Some of these pesticides are not on the World Health Organization approved list. More than one source related that such products are being sold in retail farm supply stores with labels that pertain only to agricultural uses. There is insufficient coordination between the Ministry of Human Health and MALR in this area.

Implementation of the recently issued Decree 663 of 1998 "Providing For the Agricultural Pesticides" by HE Minister Wali will resolve most of the problems related to pesticide testing, registration, and import licensing. Implementing regulations are now being formulated for consideration of the Ministerial Committee on Hazardous Chemicals & Pesticides. HE Minister Wali chairs this Committee. A subcommittee under the direction of Dr. Salwa Doghiem is developing the implementing regulations. She informed us that the pesticide industry is being invited to participate in the development of the implementing regulations.

There are also regulatory problems on allowable pesticides that work against free and open trade of needed pesticides. For example, all importing companies must apply annually for an import quota. This requires submission of the estimated amount of product the company expects to import. This amount is usually approved as a quota for the company. Should demand be higher than expected, the company must apply for an increase in the quota. The avowed objective of this system is to guarantee that sufficient pesticides will be available to meet the needs of Egyptian agriculture. Although this is a laudable objective, it is more likely to be met if imports are allowed on a free and open basis.

Practices are allowed which may lead to harmful use of pesticides. A major pesticide supplier estimates that 1,500 of the 2,500 pesticide retail shops do not handle and/or sell pesticides in a safe manner. Anyone, even children, can purchase any pesticide regardless of its toxicity level. There is no licensing requirement for transporters of pesticides. Farmers are required to have a permit to apply pesticides but this regulation is not implemented consistently. Two people informed us that a MALR television program broadcast to farmers has opening credits showing a farmer applying a pesticide in an unsafe manner.

Duties, tariffs and other fees increase the cost of pesticides approximately 21-23%. These fees include 10% duty, 5% sales tax (based on retail value), 3% stamp tax and miscellaneous fees. By contrast, pesticide imports into Israel, a major fresh produce competitor, are free of tax. As a result, the retail price of pesticides in Egypt is about 25-30% above import value whereas in Israel they are approximately 14% over imported value. This increases the cost of essential foods in the domestic market and reduces Egypt's comparative production cost advantage in export markets.

Possible APRP Actions

1. Continue implementation to liberalize pesticide availability and use. See Benchmark 1 below. Insure that these procedures include streamlining the decision-making process and

appropriate regulations and implementing procedures for human and consumer safety. Review to determine if pesticide availability in the market can be achieved before current target date of 2001.

2. In conjunction with the HEIA, provide a forum for communication between the private sector and the subcommittee, which is developing the proposed implementing regulations for the new agricultural chemical decree.

3. Work with the Ministries of Agriculture & Land Reclamation and Human Health, and possibly the Ministers of Industry, Labor, Environment, and Water & Public Works to integrate agricultural, household, and industrial pesticide registration, licensing, and policing regulations. This will require RDI to document current registration and enforcement policies and procedures and development of recommendations for a consistent and integrated program to replace it.

4. Work with MALR to eliminate the import planning and quota system now in place to "guarantee" the availability of an adequate supply of pesticides. This will require RDI to document the existing program, its costs to the public and private sectors, and the benefits to be gained from its elimination.

5. Work with The Egyptian Organization of Standardization, the Pesticides & Heavy Metals Residue Testing Laboratory, and the horticultural sector including processors to assure that Egyptian residue standards parallel those of important export markets for Egyptian fresh and processed fruits, vegetables, and herbs. This will require RDI to document standards in current or potential export markets, facilitate meetings between the various Ministries and the horticultural sector (including food processing), and support coordination between the GOE and other countries.

6. Pursue eliminating the import duty on agricultural pesticides. This will require RDI to quantify the net revenue loss resulting from such action. This calculation must account for the change in import quantities and values, and hence import duties, from the liberalizing of pesticide registration and licensing as well as increased revenues from expected increase in exports due to increased price competitiveness.

Possible APRP Benchmarks

1. There is an existing benchmark as follows: "The GOE will revise and reissue open and transparent regulations to register pesticides and will issue regulations to license pesticide companies and applicators. This benchmark will be completed by June 30, 2000. Verification indicators are set for June 30, 1999."

2. The MALR will complete testing and registration procedures in three years. If action is not completed within this time, the individual pesticide is automatically approved for use within Egypt.

3. The Ministries of Agriculture & Land Reclamation, Human Health, Industry, Labor, Environment, and Water & Public Works will establish a uniform national policy and implementing regulations for the registration, licensing, and distribution of agricultural, household, and industrial pesticides.

4. The MALR will eliminate its system of agricultural pesticide import planning, quotas and licenses and allow open importation of agricultural pesticides by private companies.

5. The GOE will establish standards for maximum residue levels in Egyptian food products that are fully integrated with those of major export markets for Egyptian fresh, dried, and processed food and herbs.

6. The GOE will eliminate the import duty on agricultural pesticides.

SOIL NUTRIENTS

Constraints

One interviewee is particularly concerned about the level of certain soil nutrients being taken out of the soil and not replaced. Others interviewed questioned whether or not this is correct and if it so, its significance. According to the interviewee adequate amounts of certain major soil nutrients are used (i.e., fertilizers including nitrogen and phosphorus) but potassium, calcium, and magnesium are not. Micro-nutrients formerly supplied by annual Nile flooding with its resultant silt deposits are not being replaced. These include sulfur, iron, zinc, boron, and copper. He maintains this is especially true among the small farmers in the Delta. He is less concerned about the New Lands where, he maintains, large growers add micro-nutrients to their drip irrigation systems. His comments implied that the GOE should require these nutrients be added to fertilizers, which he said was the case when the GOE took responsibility for fertilizer application. We were unable to verify this person's assertions or the field tests he reported that show significant crop response to these nutrients.

One constraint is imposing tariffs on soil nutrients. These tariffs are generally in the range of 5-10%, but 35% for calcium nitrate. Egyptian farmers should be encouraged to replenish the fertility of the soil they use. Tariffs drive up the cost to do so and no doubt reduce fertilizer use among the poorest farmers, effectively lowering their income potential. Tariffs also add to the cost of essential domestic foods and detract from the comparative production advantage of Egyptian products in export markets.

Possible APRP Activities

1. Study the situation with regard to the efficacy, use, and depletion of soil nutrients, especially in the Nile Delta. If, as asserted, there is a problem in soil nutrient depletion determine the incremental cost of adding these nutrients to the soil, either directly or

through mixed fertilizers.

2. Pursue eliminating tariffs on imported fertilizers and fertilizer raw materials. This will require RDI to assess the impact on GOE tariff revenues and agricultural production resulting from the removal of tariffs on these products.

Possible APRP Benchmarks

1. The GOE will test yield and qualitative impacts of adding selected soil nutrients to soil. If effective, GOE will make such nutrients available within Egypt and promote their use by eliminating import tariffs on these products and through the educational activities of its Extension agents.

2. The GOE will eliminate all tariffs on imported fertilizers and fertilizer raw materials.

AGRICULTURAL TECHNOLOGY TRANSFER

There is tremendous opportunity for improvement of Egypt's horticultural sector through technology transfer. These improvements relate to agricultural productivity as well as improvements in product quality and marketing efficiency. They will come through proper application of the latest applicable agronomic techniques and investment in and efficient use of more modern marketing and food processing technology. Key to this modernization is the ability to transfer new technologies to the Egyptian farmer, trader, and food processor. This is not being done well at present. Major changes in the technology discovery and transfer process are required to achieve it. This section discusses constraints on technology transfer regarding horticultural production. Subsequent sections deal with technology issues in storage and processing.

Constraints

It is widely recognized that MALR's Extension services do not include an effort in horticulture. MALR Undersecretary for Horticulture Ibrahim Sheta informed us of his own extension effort involving 4,000 field staff of his Department which are outside the Extension service purview. Private sector contacts have not noticed an increase in agronomic technology transfer activities from this service. Nor are they aware of any significant tangible benefits to date of government agricultural organizations to integrate research initiatives with on-farm needs. Tangible proof of the lack of significant GOE presence in horticultural extension is that all major exporters and some domestic food processors have their own extension or farmer monitoring systems to initiate and/or ensure use of appropriate inputs and farming techniques. Their extension services are typically provided either through formal contracts or de facto purchasing agreements (as in export green beans).

APRP has obtained MALR concurrence to initiate a move toward a privatized research and extension system. Tranche III benchmark D. 8 proposes initial implementation as follows: "The MALR will implement a phased plan for support and/or transfer of specified research and extension activities to the private sector. The plan will include at least. A) Specification of the research and extension functions which the public sector will enable the private sector to provide in one pilot Governorate. B) Administrative and management structures and rules to ensure MALR inspection. certification, licensing and quality control for services and information offered by the private sector." The horticultural sector could well provide an opportunity for a pilot project in extension with possible broadening to include research.

There are also opportunities for improved technology transfer in products being produced for export. For example, ATUT officials indicated that production of export quality grapes among the best Egyptian producers is significantly below that of Chilean producers. These problems, however, are not among those to which the GOE should devote Extension resources. They should be the responsibility of private sector companies who will profit from the resulting increase in profits. In the short term this capability is being adequately provided by ATUT.

Possible APRP Activities

1. Establish a private extension service for horticultural products in one Governorate. To assist in the development of the private sector model, RDI may wish to study the organization, service delivery, and fee structure of Chile's system, in which universities and private companies deliver all agricultural extension services. In implementing the pilot project, consideration should be given to staffing the project with existing GOE Extension agents (Extension Service or Horticultural Department) who show the capability and motivation to become highly effective extension agents. While working for the pilot project, they should retain their employment status with the GOE should it become necessary for them to return to the Extension service. The project should draw on private sector capabilities for training (e.g., pesticide company training programs, growers/exporters for production and post harvest handling techniques, and exporters and processors for product selection, product standards, and marketing).

2. In providing the extension services the organization should become aware of technical problems which need research. Addressing these problems can be coordinated with the appropriate GOE agricultural research organization. Should these organizations be unable to respond effectively, APRP should seek to establish a private research service.

Possible APRP Benchmark

The MALR will implement a plan to establish a private sector agricultural extension service for horticultural products in a Governorate to be selected by MALR and APRP. The plan will be developed and implemented in accordance with previously achieved and proposed APRP benchmarks.

POST- HARVEST HANDLING

Constraints

While there is lack of agreement on the percentage of product lost after harvest, it is generally agreed that these losses are high - certainly no less than 15% and possibly more than 30%. This includes all losses from field harvest through retail distribution. These losses result from three major sources: lack of proper packing for transport, lack of adequate cold storage for grading and packing activities, and lack of adequate refrigerated transportation. Reductions in post-harvest loss will free land for cultivation of additional crops or other uses.

Improvements in post-harvest handling are being led by the export sector as they gain significant profits through improved post-harvest handling. As domestic demand for higher quality product increases, growers/exporters will broaden their improved post-harvest handling techniques to the domestic market. The GOE can foster this technology transfer by promoting the use of post-harvest handling technologies such as packing containers and grading, packing and storage facilities. The GOE has already encouraged this at the wholesale level by including refrigeration facilities at the El Obour and 6th of October markets in Greater Cairo. This activity should be extended to the private sector participants in the marketing chain before product reaches wholesale markets. This will have two effects: (1) it will preserve the quality of some of the produce handled to the degree necessary for sale into export markets; and (2) it will increase the quality of product available in the domestic market. The owners of these facilities will bypass the various levels of wholesale markets to sell to buyers of high quality products (e.g., supermarkets, hotels, and institutional feeding operations) as is already being done to some extent. Over time the increase in domestic demand for quality products will allow for establishing an extensive network of these facilities, reducing post-harvest losses and allowing increased total production and/or freeing land for other crops.

Possible APRP Activities

1. Examine the feasibility of establishing the use of returnable plastic trays for packing and transporting produce to domestic markets (as did Development Alternatives Inc.'s Agribusiness Development Project in Indonesia). A private sector investor will likely initiate such a project by importing crates, with manufacture in Egypt to follow when the market has been proven. If the project appears feasible, promote the idea to potential investors in the private sector. If the project appears viable but requires risk reduction to secure investment, work with private sector investors to quantify the incentive required and approach the GOE with a proposal. Any recommendation presented to the GOE should not include imposition of a government or government-sanctioned mandate on the use of these crates.

2. Work toward the elimination of tariffs and sales taxes on all modern post-harvest handling systems. Imposing these taxes works against the comparative production advantage Egypt has for export products. Their elimination will have a minimal impact on GOE revenues as the current level of imports is very low.

3. Analyze the feasibility of establishing modern cooling facilities in major areas of horticultural production for domestic markets. This analysis should include variance analyses suspending tariff and sales taxes on capital equipment and a tax holiday. Since there are no such facilities planned, the actual revenue loss will be minimal. If such facilities are built by a small number of growers, a portion of their space might be reserved for other farmers and traders for the length of the tax holiday to broaden their impact.

Possible APRP Benchmarks

1. The GOE will eliminate import duties and establish a tax holiday for a pilot project to import and promote the use of returnable plastic crates for packing domestic market produce.

2. The GOE will eliminate tariffs on pre-cooling equipment, field and transport packing containers, and equipment needed for modern grading and packing facilities, including refrigeration equipment.

3. The GOE will eliminate tariff and sales taxes and establish a tax holiday for modern cooling facilities in small-farmer horticultural production areas for domestically marketed products.

TRANSPORTATION

Clearly, produce transportation has improved since the TSG/SRI report. Air cargo space has increased significantly and Egypt Air has introduced special "high season" rates. More containerized ocean liners are calling on Egyptian ports and the container supply situation has eased considerably. However, space and destination needs also have increased. Everyone agrees that the industry's major problem is the lack of inadequate refrigerated transportation space to export markets. However, they disagree on virtually everything else including factual information such as tariff rates on imported equipment and even freight rates. APRP will have to determine the specifics. Policies and procedures exist which maintain high transportation costs (the major cost component in produce exported by air), restrict expansion of the export sector, and have a deleterious effect on the quality of Egyptian produce in both domestic and export markets.

It is also clear that beneficial developments in transportation are occurring at a fairly regular rate in response to competitive pressures and GOE initiatives. HEIA's advocacy effort may be able to bring additional pressure that accelerates the rate of

change. This will require a timely effort to track what is happening in transportation, how the situation is changing, where new efforts are needed and what they are. ATUT's Transportation Coordinator and timely analytical support, possibly from APRP, are essential to this effort.

REFRIGERATED TRUCKS

Constraints

It is in Egypt's interest to have a refrigerated trucking industry. This will allow Egypt to become more competitive in international produce markets by maintaining the cold chain and will eventually benefit the domestic sector by reducing post-harvest and quality losses. There is a shortage of refrigerated trucks to transport fresh produce from the farm and/or packing house to market. Exporters minimize the problem by using containers, often not refrigerated, and sometimes temporary storage in cooling facilities at the export ports. Very large companies purchase their own refrigerated vehicles.

A major contributor to this problem has been the high cost of importing refrigerated trucks and parts. Until recently the import tariff on a complete refrigerated truck was as high as 70%. The level of tariff depends on the imported equipment itself, with more options increasing the tariff. For example, the more wheels the higher the tariff, the larger the engine the higher the tariff, the greater the number of cylinders the higher the tariff, etc. The current tariff is 45% with a proposal before Parliament to reduce it to 5%. Sales tax, stamp tax and various other costs add another 15%. This total tax burden may have resulted in Egyptian truckers establishing companies in Jordan (to operate in Egypt), where the cost of a refrigerated truck is reportedly one-half the cost in Egypt.

GOE policies restricting the supply of truck cargo space also increase the cost of transporting products by truck. GOE regulations do not allow a non-Egyptian truck entering Egypt to haul products out of Egypt unless it has a prior contract for back-haul. Nor can non-Egyptian trucks transport goods from point to point within Egypt. While haulers work around these regulations, it is at an increased cost that is passed on to the shipper. There are also cross-border problems. Egyptian trucks cannot carry product through Jordan; Saudi Arabia does not allow entry of foreign trucks (supposedly a security issue); there are border inspection/clearance delays with Jordan. Possibly excepting Saudi Arabia, these regulations are designed to protect the profitability of domestic trucking companies. If a Jordanian truck in Egypt is faced with an empty back-haul, it will accept a relatively low price to obtain cargo, thus increasing competition and lowering the income of Egyptian truckers. The interests of shippers and consumers are entirely ignored.

Possible APRP Actions

1. Pursue elimination of import tariffs on refrigerated trucks. RDI will need to determine the impact of tariffs on the cost of imported refrigerated trucks, their availability, freight rates, and government revenue. The analysis should include complete refrigerated trucks as well as various knocked-down configurations, and on spare parts. If the tariff has been reduced to minimal levels and/or if relatively few trucks are being imported now, the revenue loss to the government is likely to be minimal. Note: Elimination of the tariff also increases the feasibility of action 2 below.

2. Pursue the elimination of restrictions on the use of non-Egyptian trucks to haul products to, from, and within Egypt. Due to restrictions placed on them by neighboring countries, this will be met with opposition from the Egyptian trucking industry . Therefore, this action might be taken on a regional basis through the regional organization dealing with transportation liberalization. APRP can provide analytical support to the GOE for these negotiations.

Possible APRP Benchmarks

1. The GOE will eliminate tariffs on the import of refrigerated trucks, components and spare parts.
2. The GOE will eliminate all restrictions on the transport of goods to, within, and out of Egypt by non-Egyptian trucking companies.

SEA TRANSPORT

Constraints

The cost and availability of refrigerated containerized sea transport for fresh horticultural products have improved recently. Rates have lowered both in absolute numbers and relative to air freight rates; space availability has increased in amount and frequency from ports on both sides of the Suez Canal; transit time to Northern Europe has been reduced; port fees have been reduced; potatoes, citrus, and grapes are currently shipped in containers; and testing is in progress on containerized shipment of bobby beans.

Several problems remain. Direct service is unavailable to several export markets, and not available to any in the frequency needed. Port services privatization has not proceeded as quickly as hoped for and the quality of services provided by the GOE monopolies remains low. In Alexandria (and perhaps in other ports) Customs' clearance of imported containerized foodstuffs takes up to three weeks, resulting in congestion in the terminal and high container storage charges. There may be a shortage of loading/unloading gantries in the Alexandria container port, which increases vessel

waiting and in-port transit time. Foreign vessels are charged higher berthing fees.

Privatization of port services is an announced GOE goal and is allowed under Law Number 1 of 1998. Thus far, however, privatization activity has been limited to allowing the establishment of privately owned ship agency and stevedoring companies. Ports themselves and container loading and unloading services remain GOE monopolies. The privatization of container handling companies appears to be a sensitive issue. A recent assessment regarding the feasibility of privatizing the Alexandria Container Handling Company has been conducted but its dissemination appears to be very restricted. We are unaware of its content.

Except for limited direct service capability, none of these problems is a constraint to further development of the horticulture sector. This important problem is one of shipping company economics rather than GOE policies and procedures. None of the other problems is a major constraint to development of the horticultural sector, but taken together they create a significant nuisance, add to the cost of imports for and exports of the horticultural sector, and may constrain added shipping service.

Possible APRP Actions

1. Starting with Alexandria, identify the sequence of activities required for Customs' clearance of imported goods at all ports. Prepare a procedure streamlining the process. This might include establishment of a relocated Customs' inspection facility, perhaps outside the port, to eliminate congestion at container unloading/loading sites.

2. Identify the schedule for privatization of ports and port services and/or allowing the establishment of competing private sector providers at all ports. Provide necessary information to the private sector interests to lobby for its implementation. Consider the possibility of separating the services now offered jointly at the main Port of Alexandria and its extension at Dekheila.

3. Determine whether additional gantries and/or other equipment and facilities are needed at the ports. This will require APRP to work with shipping companies to identify (a) slowdowns in unloading/loading caused by gantry breakdown, (b) gantry unavailability to unload at maximum capacity (e.g., with two or more gantries instead of what is available), and (c) an investment analysis to determine possible rate increases resulting from the acquisition of one or more additional gantries.

4. Determine for all ports if differences exist in port fees charged to foreign and Egyptian flag vessels.

5. Coordinate meetings between HEIA and shipping companies to disseminate current information and encourage discussion regarding sea transport service issues and improvements.

Possible APRP Benchmarks

1. Incoming containers will clear Customs within seven working days. Cargoes not receiving clearance within this time will be automatically released.

2. The GOE will privatize its ports and privatize or open all port services to private sector companies in accordance with the following schedule:

Service Area	Alexandria	Port Said	Other Ports
Shipping agencies	complete	date	date
Stevedoring	date	date	date
Customs	date	date	date
Container handling	date	date	date
Port	date	date	date
Etc.	date	date	date

3. Additional gantries will be installed in Alexandria's container port.

4. Uniform port fees will be charged to all vessels regardless of flag.

AIR FREIGHT

Constraints

Air freight charges are the largest single cost component for any perishable export product - up to two-thirds of the total CIF cost. Also important are the frequency of cargo space availability and the availability of cooling space in the area where cargo is transferred from trucks or storage into containers. Egyptian exporters incur major problems in all of these areas.

Historically the rate structure from Cairo International Airport to the major Northern European markets for Egyptian horticultural products has been dominated directly and indirectly by Egypt Air and/or the GOE: directly by Egypt Air rates, indirectly in the form of restricting space available. Up to last year, Egypt Air rates had been high: LE3.00/kg. to Northern Europe. Some exporters noted that, in an effort to assist the horticultural industry, Egypt Air now charges LE1.00/kg. for both liner and cargo freight during the "high season". However, because demand for space greatly exceeds supply, other airlines have kept their rates high. We were quoted the following liner and charter rates by the ATUT Transportation Coordinator.

Passenger Liner Service

Egypt Air LE 1.00/kg. to London, 550 kg. minimum

BA	LE 3.80/kg. to London, 550 kg. minimum
Egypt Air	LE 1.00/kg. to Amsterdam, 750 kg. minimum
KLM	LE 3.00/kg. to Amsterdam, 750 kg. minimum
Air France	LE 2.90-3.00/kg. to Paris (lower figure for >1 ton)
Lufthansa	LE 3.00/kg. to Frankfurt, 500 kg. minimum

Charter Service

Egypt Air	LE 1. 00/kg.
TMA (Lebanon)	40 ton load, US$ 44,000 with/without return cargo (US$ 0.55 per leg)
Royal Air Jordan	40 ton load, US$ 43.000 with/without return cargo (US$ .5375 per leg)
Venus Air Freight	US$ 0.73/kg. to Belgium (may be an average; range with the range being US$ 0.50 to 1.00 depending on the availability of backhaul)
Private (Amsterdam)	US$ 0.90/kg.

For comparison we were given liner rates to Northern Europe on Royal Air Jordan from Amman and El Al from Tel Aviv of US$ 0.65/kg (LE 2.21) and US$ 0.45/kg (LE 1.08), respectively. We also received quoted rates and minimum tonnage requirements to Eastern Europe and Gulf destinations. However, they are less important than the rates to Northern Europe, which are where Egyptian exporters are trying to penetrate.

Rates can be kept high because of the significant lack of space available. For example, the freight agent who handles 90% of the shipments to Northern Europe stated she could ship 180 tons/day to these markets during most of the mid-October/end-of June season. Yet there is regular liner space available for only 57-61 tons per day (England 30-34, France 10, Frankfurt 16, Geneva 1). Additional charter space is available as follows:

England	Egypt Air	40 tons, once/week
France	Air France	50 tons, once/week
Belgium	Venus Air Cargo	40 tons, Mon-Fri

The addition of Egypt Air's cargo flight improved the situation this year, but it is not improving fast enough to meet market demand.

The lack of additional passenger liner space may be due to the nature of international agreements on landing rights. We were told that there is no problem because Egypt has an Open Skies policy. We were also told that "Open Skies" means national airlines flying reciprocal routes to and from an airport in each country are granted exclusive access to that route. For example, if Egypt Air wants to fly to London then Egypt must grant reciprocal rights to British Air to fly to Cairo and the respective national aviation authorities grant them exclusive access to these routes. If this is correct,

then Egypt (basically Egypt Air) has absolute control over the amount of regularly scheduled passenger liner cargo space available for shipments out of Cairo.

The 1997 Luxor incident reportedly reduced the amount of tourist charter space available. However, since these flights are not allowed to land in Cairo, cargo would have to be taken to Upper Egypt to be loaded on these aircraft . That seems a practical impossibility. It is highly unlikely that a passenger charter would stop in Cairo, unless it were returning empty, in which case it would probably welcome the opportunity.

This situation could be relieved by the availability of charter aircraft. However, charters appear in short supply this year. A major private charterer out of Egypt is paying up to 20% more than last year and had an availability crises within the past month. If this happens when parts of the world economy are in recession, we expect the charter market will become even tighter as those economies recover. It seems inconceivable that there are no empty charter flights that could stop in Cairo for produce, (e.g., carriers of mining equipment to southern Africa, or oil well equipment supplies into the Gulf). Apparently the GOE has a policy to allow over-flights to stop in Cairo for cargo. However the fair-freight agent previously mentioned has been unable to locate a consolidator for such space. It appears advisable for Egyptian produce shippers to coordinate shipment information and exploring joint charters.

Horticultural exporters also experience a break in the cold chain at Cairo International Airport. There is inadequate covered parking space for trucks that are waiting to load air freight. On hot days this can cause an increase in the temperature inside the refrigerated truck or non-selfcooling containers. Exporters using the Airport or nearby private cold-store facilities also experience a break in the cold chain. The Airport facility is outdated and maintains inadequate temperatures. Shippers using the private refrigeration facilities at the airport must transfer their products to containers in the Airport's unrefrigerated loading space which means the container has a higher than desired interior temperature.

Possible APRP Actions

1. Determine the approximate cost of transporting produce from Cairo to target markets. This information will be useful to HEIA in approaching airlines for negotiation purposes.

2. Determine what Egypt's Open Skies policy is and advocate that any liner or charter may fly to and from Cairo from any airport provided there is terminal space.

3. HEIA is negotiating a contract with a foreign consultant to study the cold-storage situation at Cairo International Airport. This study is being funded by the Center for International Private Enterprise (CIPE). APRP will complete the study's policy analysis aspects. The study will result in specific recommendations for improvement of the situation, possibly including construction of a new facility. If the study determines that a private company cannot operate within the Airport grounds, APRP should work for a

change in this policy. APRP also should insure that any new or upgraded facilities at the Airport be undertaken by the private sector, and that the current GOE facility be privatized or, if it cannot be rehabilitated at reasonable cost, torn down.

4. APRP should encourage ATUT/HEIA to determine the feasibility of cooperative chartering by Egyptian produce shippers, determine the availability of air freight consolidation companies providing service to Egyptian air freight companies, and lobby for the reduction of air shipment cargo weight minimums.

5. Coordinate meetings between HEIA and airline companies to disseminate current information and encourage discussion regarding transport service issues and improvements.

Possible APRP Benchmarks

1. Egypt Air will adopt air cargo rates for fresh fruits and vegetables representing a reasonable markup from its costs. (Note: The level of a reasonable markup should be estimated in the study mentioned in 1 above).

2. The GOE will increase the tonnage of fresh fruits and vegetables from x tons to x tons in 2000. (Note: The increase would be significant from the base year. A higher target would be established for 2001.)

3. The GOE will grant landing rights to its international airports to any cargo aircraft at reasonable costs.

4. The GOE will privatize cold-storage facilities at Cairo International Airport. This will include privatization of the existing facility either as is or in conjunction with an upgrading project.

FOOD PROCESSING

Constraints

Constraints in this sector relate principally, if not exclusively, to export products. Domestic market products do not encounter the exacting quality standards often found in export markets, high productivity to be profitable, or the transportation difficulties and commercial risks associated with entering a new market. However, given the current size and growth of the domestic market, export marketing constraints do not appear significant to horticultural sector development.

Lack of market information is often cited as a constraint to exporting processed horticultural products. However, that information can be obtained by companies who have the ability to enter export markets. There are several organizations that provide

market information on processed foods, two of which are mentioned in this report - Egyptian Export Promotion Centre and Egyptian Exporters Association. The constraint we see is not lack of information but inability to respond effectively to that information. This inability to respond gets into the real issues: difficulty in modifying product formulations to export market requirements, high tariffs on required packaging materials, lack of competitive processing technology, and high tariffs on imported equipment.

A second set of problems relates to the attractiveness of the domestic market and the difficulty of entering export markets. Profits in the domestic market are quite attractive at least in part because of import duties on some processed products. Thus, unless a company is interested in spreading its risk, there is no need to enter the export market. This decision is reinforced by the inherent difficulties in exporting. The demands of new customers must be identified, products may need to be reformulated, and new, superior packaging is required, new financial risks taken. It is usually much easier and sufficiently profitable to limit activities to the domestic market.

A final set of problems relates to tariffs imposed on imported products in some countries. For example, the European Union is highly protective of its agricultural sector. Import tariffs may include a general import tariff, a tariff imposed on agricultural products, and an additional tariff imposed on certain ingredients (e.g., sugar).

Possible APRP Actions

1. Pursue reducing or eliminating import tariffs on materials and ingredients used by food processors. This will be impossible to limit to export products, so the elimination will have to be across the board. If such action were to result in a major decline in GOE revenues, it will be difficult to achieve. In light of this RDI should identify those machines, ingredients, and supplies which are most related to exports and work for the elimination of tariffs on them. Examples include freezing equipment and packaging materials.

2. Work towards eliminating import tariffs on food products. This may not be politically acceptable for products consumed exclusively by high-income consumers. RDI should therefore identify those products consumed by the majority of consumers and propose the elimination of tariffs on these products. Elimination of these tariffs will not be popular with Egyptian food processors. However, they will eventually face increased foreign competition as import tariffs are reduced in line with World Trade Organization agreement provisions. Eliminating them now, perhaps on a phased basis, gives Egyptian food processors time to adjust. It also will lower profitability on products sold in the domestic market, thereby making export markets more attractive. If this tariff reduction is concurrent with a reduction in tariffs on imported equipment, ingredients and supplies, the overall impact on Egyptian food processors will be alleviated.

Possible APRP Benchmarks

1. The GOE will eliminate tariffs on selected imports of food processing equipment, ingredients for food products, and packaging materials.

2. The GOE will eliminate import tariffs on selected processed food products.

TAXES

Constraints

Whether the level of taxes is a constraint to development of the horticultural sector is an unsettled issue. Active members of HEIA believe it is, citing high taxes as negating comparative advantages in production and inhibiting investment. They cited nine taxes that combine to cast an unfair burden on Egyptian companies engaged in horticultural development. These taxes are: customs duties, general sales tax, buildings tax, development tax, property tax, stamp tax, agricultural land tax, development duty, and income tax. All but the agricultural land tax also apply to other businesses.

There is mixed evidence that Egyptian taxes may, in fact, place a greater burden on Egyptian horticultural exporters than do those imposed in countries with which Egypt competes. The following table shows a comparison on selected taxes with four leading competitors for West European horticultural markets.

Tax Description	Rate of Tax Imposed (%)				
	Egypt	Chile	Israel	Jordan	Morocco
Corporate income tax with surcharges	34	15	36	25	35
Sales tax/VAT	10	18	17	10+	7-20
Social insurance	24-26	0	5	10	9-15

SRI International's measurement of Middle East "Commercial Policy Scores" indicates Egypt's tax regime as significantly inferior to that of Jordan but on a par with those of Israel and Morocco. Out of the best possible score of 16, Egypt scores 4 while Jordan, Israel, and Morocco score 16, 4, and 4, respectively.

Elements of tax relief used effectively to spur exports in other countries include duty drawback and sales tax rebate on imports that are eventually re-exported, and tax holidays. Egypt currently has all of these in place. Some exporters complained of delays in obtaining payments due on duty drawback but generally it is seen as a nuisance rather than a constraint. Tax holidays accrue to certain projects related to horticulture (e.g., construction of cold storage or establishment of an integrated growing/sorting/packing operation in selected areas). There is no tax rebate or holiday that applies to horticultural export projects in general.

A comparison of the total tax burden as applied to horticulture is needed to establish whether Egyptian growers/exporters are losing a comparative production advantage because of relatively high taxes. If this is the case and/or the GOE wishes to provide incentives for expansion of horticultural exports, it may want to include some form of tax relief in those incentives.

Possible APRP Actions

APRP, in conjunction with other USAID projects, could undertake a broad analysis of current GOE tax policy in agriculture and a comparative analysis of taxes imposed on the horticultural sector relative to its major competitors for West European markets. This could include the following:

1. Identify and quantify taxes imposed in Egypt that affect the production and export marketing of Egyptian agricultural crops - horticultural, cotton, rice, planting seeds, groundnuts. This will determine the monetary impact of current taxes on Egyptian agricultural exports cost and possibly establish the need for wide-ranging tax reform as it affects agriculture and agribusiness.

2. Determine the impact of taxes on Egyptian horticultural crop exports and major competing countries on Egypt's competitive position in target markets. This will determine if Egypt is being priced out of the target export markets by taxes which are higher than those imposed in competing countries (e.g., Chile, Israel, Jordan, and Morocco).

3. Determine benefits to be gained from reduced tax levels on Egyptian horticultural exports. These benefits will include new jobs created and increased foreign exchange earnings. Incremental income tax generated will partially or completely offset GOE revenue losses from reduced tax revenue from the horticultural export sector. This information can demonstrate to the GOE that proposed tax reforms are economically and politically good for Egypt.

4. Formulate one or more proposals for tax relief that HEIA will advocate to the GOE. HEIA can share the information developed in 1, 2 and 3 above with other export crop associations to create a broad-sector coalition seeking tax relief in the agricultural sector.

These actions might also draw support from USAID's CIPE, and DEPRA projects.

Possible APRP Benchmarks

1. The GOE will establish a tax holiday for companies entering the horticultural export trading business by a specified date.

2. The GOE will forego all Custom's duties normally levied on plant, equipment and supplies required to establish and operate horticultural export business for companies entering the business by a specified date.

3 The GOE will modify other specific tax levies on horticultural production and exporting businesses to maintain Egypt's comparative production cost advantage in international markets.

INSTITUTIONAL SUPPORT MECHANISMS

The objectives in the Terms of Reference for this assignment include the following:

1. Assess and suggest improvements in the institutional support mechanisms that support expansion and development of the horticultural subsector including associations such as Horticultural Export Improvement Association, Egyptian Export Promotion Centre, and Egyptian Seed Association.

2. Recommend specific changes in institutional promotional mechanisms that will encourage expansion in private sector production, processing, marketing, and exports of Egyptian horticultural products.

The consulting team interviewed a number of institutional support organizations and also brought their knowledge of other such organizations in Egypt and abroad. Additionally, USAID and World Bank analyses of export, investment, and agribusiness development projects were reviewed. The organizations mentioned in the Terms of Reference and the evaluation literature focus on donor-funded project activities in non-traditional export-led development. APRP, conversely, is concerned with total subsector development. Since there are no private organizations focusing on overall horticultural subsector development, we also considered and comment briefly on the capabilities of more traditional GOE offices to contribute to the development of the overall horticultural subsector.

In considering these institutional support organizations, we focused on their ability to provide assistance to current and potential participants in commercial horticultural activities in the areas of market identification and information, production and processing technology transfer, and marketing support.

CHARACTERISTICS OF EFFECTIVE SUPPORT ORGANIZATIONS

The USAID and World Bank analyses consider government and non-government organizations established to promote export, investment, and agribusiness

developme . They do not consider traditional government ministries such as agriculture or trade. Nor do they consider cooperatives. However, some of the important lessons learned in these analyses provide insights into what can be expected of support institutions.

USAID's 1994 analysis "Export and Investment Promotion Services: Do They Work" presents the most relevant analysis for this assignment. The study assessed a broad range of export and investment promotion service organizations. In the area of trade promotion these organizations included government trade promotion offices (7), private trade promotion offices (2), membership organizations (2), and targeted, time- bound programs (3). Similar organizations in Egypt which we interviewed include the Egyptian Export Promotion Center (a GOE trade promotion office), Egyptian Exporters Association/ExpoLink (a private trade promotion office funded by USAID), and the Agricultural Technology Utilization & Transfer Project (a USAID-targeted program). We also worked closely with the Horticulture Export Improvement Association (an exporter membership association). We did not include the Egyptian Seed Association (ESAS) in our analysis because it is a fledgling organization, not yet effectively organized. All of the organizations evaluated by USAID received some form of subsidized support from their government, donor organizations, and/or the private sector. This is also true of the organizations reviewed here.

Investment promotion programs evaluated in USAID's analyses included government (2) and private institutions (3). The latter included the now closed U.S. Investment Promotion Office of Egypt. We did not interview the General Authority for Investments – the GOE investment promotion office - but did meet with the American Chamber of Commerce in Egypt to discuss foreign direct investment issues.

USAID evaluation of these organizations was based on three categories of performance indicators. These indicators and USAID's comments on them are as follows:

1) "The autonomy and capacity to systematically filter out (unqualified) firms. Many export promotion programs (especially trade promotion organizations) fail because they facilitate buyer contacts with firms not yet ready to export. Export promotion programs can effectively screen out those not yet able to export by a systematic selection process (rating firms' export capacity based on a pre-established criteria), cost sharing (sharing a part of the service costs which is a measure of commitment and readiness), or other approaches."

2) "Whether exporters highly value the service received from a subsidized intermediary. An important determinant of quality is the staff delivering the service: their technical qualifications, private sector expertise, and financial incentive. Another measure of quality is whether the service leads to buyers, a critical link in the export process. Final measures include how exporters rate the provider in delivering a particular service and whether buyers or others in the private sector are already supplying the service on a non-subsidized basis."

3) "Whether the private sector has a stake in the outcome of the service provision. Government domination and lack of private sector involvement undermine the effectiveness of many trade promotion agencies. Measures of private sector commitment include significant participation on the providers' boards of directors, contribution of counterpart funds, and representation on sector-specific export councils."

USAID found that the types of organizations it evaluated differ markedly in their ability to serve clients. They concluded the following:

1) Government trade promotion agencies often lack autonomy to select focus areas and clients and have budget limitations which limit their access to the technically qualified staff necessary to provide high quality services. Private sector involvement can be as little or as great as desired. Budgets are usually low but sustainable.

2) Private trade promotion agencies have greater autonomy to select focus areas and clients and better access to the skilled people who can provide high quality services. Private sector involvement is high. Sustainability is a key issue.

3) Exporter associations are often weak in selecting a focus and clients unless they are targeted to a specific commercial sector. While they often end up providing a standardized service package (similar to government promotion organizations) they can deliver high quality services. Private sector participation is high. Again, independent sustainability is an issue.

4) Well designed targeted programs have been the most successful providers of export development services. They are focused by their very nature, have substantial flexibility to select clients provided they are not dominated by a host country government office, have highly qualified staff with international market contacts and access to back-up technical expertise. They are, however, wholly dependent on donor funds and therefore have limited success in securing long-term private sector commitment.

5) Key findings regarding investment promotion agencies mirror the above. Namely, government agencies are hampered in providing quality services to investors by a lack of focus and budget limitations. The private organizations evaluated did not have these limitations and, with one exception, were very successful. The exception was the U.S. Investment Promotion Office of Egypt. Its failure is attributed not to its structure but rather to Egypt's then national policy of state domination of the economy, a disincentive to foreign private investment that promotion services could not overcome.

SELECTED PROGRAMS IN EGYPT

MALR and GOE-Supported Agricultural Organizations

The project team interviewed executives from several MALR departments and related organizations that work in horticulture. MALR contacts included the Department of Horticulture, the National Research Center, and the Central Department of Agricultural Cooperation. We also contacted three organizations that are not government offices per se but receive direct subsidies from the GOE and/or are beneficiaries of special laws that give them a GOE-supported role in agriculture. These groups are the Central Agricultural Cooperative Union, the Union of Producers & Exporters of Horticultural Crops, and the General Potato Growers Cooperative. The Egyptian members of the consulting team are also familiar with other government and cooperative organizations.

Generally, MALR offices are constrained by a low level of funding and mandatory employment laws. They have the ability to address narrow issues but their work is limited in what they can do in technical and marketing issues facing the horticultural sector. For example, it is generally recognized that MALR Extension Department services concentrate on cotton. They don't have the resources necessary to establish a major effort in the wide variety of horticultural crops grown by Egypt's many small farmers. In view of this problem the Undersecretary for Horticulture has established an extension service within his department. This is a laudable effort, but some interviewees question whether it can have a significant impact.

The various unions have access to some government funds but must generate additional income to cover costs. Crop cooperatives receive no government funds. They have previously benefited from GOE policies but actions liberalizing the economy are causing them some problems. For example, liberalization of seed potato imports has cost the General Potato Growers Cooperative its position as one of only two groups formerly allowed to import seed potatoes. This results in a loss of revenue from seed potato sales and has also increased competition for purchase of the potato crop.

In light of these problems, the lead in further development of the horticultural sector must come primarily from private sector initiatives. APRP's objective is to liberalize GOE policies so that private organizations can expand their role in development. Additionally, it should be recognized that GOE offices and organizations could play a role within the overall effort. Thus, an effort must be made to determine how GOE capabilities can be integrated into an overall private-public effort to support development of the horticulture sector. APRP is moving in this direction with its proposal to experiment with a privatized extension service. Undoubtedly staffing of a private extension service will include current GOE Extension staff.

APRP's efforts with unions and cooperative groups should continue in trying to achieve broad reforms and attendant adjustment programs. A benchmark designed to establish cooperatives on a private sector competitive basis would require rewriting the

cooperative law, assistance in restructuring these organizations, and management training.

Egyptian Export Promotion Centre (EEPC)

EEPC is a GOE organization within the Ministry of Trade & Supply. Its objective is "to promote and activate Egyptian exports whether commodities or services in the world markets". It serves mainly small and medium sized enterprises - they are 90% of EEPC's client base. EEPC has four areas of activity geared to this objective: export promotion, information, product improvement, and training. It does not work in policy reform except to support the activities of other organizations.

EEPC's principal export promotion activity is trade missions. It organizes each mission and accompanies the mission group. Participants pay their own travel and personal expenses. Generally three to five missions have been conducted annually, each visiting two or three countries. The missions do not have a product focus other than what EEPC has identified as products with market potential. For example, a mission may include manufacturers of food, textiles, leather shoes, furniture and other products. Country selection is based on studies of market situations in various countries. These studies and the missions themselves are completed with the assistance of the GOE Commercial Attaches. Missions are preferred to trade fairs because they are less expensive and participants have more flexibility to conclude business deals.

EEPC's information activities include answering questions from Egyptian companies about specific markets and foreign company requests about Egyptian products and suppliers. Again they work closely with GOE Commercial Attaches. The Centre fields about five or six information requests daily.

Product improvement activities have been undertaken in leather shoes with technical and marketing assistance from German Technical Cooperation (GTZ). After technical assistance is rendered, quality producers are given the opportunity to participate in an international trade fair. Proposals for programs along similar lines are being discussed with other donor organizations.

Training activities focus on basic export activities: how to sell in a specific market, types and uses of international contracts, and similar information basic to exporting. The Centre offers 8-10 programs annually (2-3 days each) with 20-25 participants/program. A proposal to establish a training center for new exporters is under discussion with JETRO.

EEPC does not work in policy reform, per se. It does support organizations that request assistance and will form working groups from its client base for this purpose.

EEPC 's annual budget from the Ministry is LE 3 million (US$880,000). It will receive an additional LE 6 million over the next four years from APRP Tranche funds. Plans for this money include additional market studies, financial support for small companies to participate in trade missions, organizing additional trips for foreign buyers to Egypt, publication of subsector product catalogues - all cost-effective activities designed to strengthen buyer-seller contacts. The staff complement is approximately 125, 40 who are in administrative functions. The Centre's Board of 20 includes 10 from the private sector plus representatives from such GOE organizations as Egypt Air and the Ministry of Trade's Offices of Trade Fairs and Trade Points. The Centre also has sector committees composed of business executives.

The Centre is hampered by the constraints on government trade development offices discussed above. Most notable is its relatively low budget and the need to offer a general service package to all interested parties rather than focus on targeted industries and clients (except under special donor programs). EEPC Chairman Dr. Hamdy Salem, relatively new in his position, is moving EEPC in positive directions. He has involved administrative staff in client service activities, established a link with the Egyptian Exporters Association, secured the aforementioned special GOE budget allocation, and is seeking to establish targeted market and technical assistance programs with foreign donor organizations. GOE Commercial Attaches get high marks from other organizations we interviewed. Their services are available to all Egyptian companies. EEPC is well positioned as a link for APRP to private sector small and medium sized companies and as a cooperating agency for private associations engaged in advocacy. It is not in a good position to establish a major program focused on promoting policy reformation and development of the horticultural sector.

Egyptian Exporters Association/ExpoLink

The Egyptian Exporters Association/ExpoLink (EEA) is a private non-profit membership organization started in October 1997. Its objective is to "promote Egyptian exports through increased global competitiveness through effective, comprehensive and professional information, expertise and technical assistance to private sector exporters". Current fee-based membership numbers about 65. Clients pay a significant portion of the cost of services rendered. EEA's primary operational funding is a four-year $30 million cooperative agreement grant from USAID's Growth Through Globalization initiative.

EEA has five main areas of product focus: fresh and processed foods, footwear and leather products, furniture, software, and ready-made garments. Services to clients include marketing information and studies, marketing advice, marketing materials development, organization of trade show exhibits, sales match making, product and process technology transfer, and management systems advice. Key to its success is the ability to provide access to short term technical assistance from experienced experts who are still active in their own business. In the food area EEA technical assistance has worked with individual clients entering a special market niche for potatoes, to improve

lettuce yields, analyze the feasibility of IQF strawberry processing, improve post-harvest yields in organic herbs, and assisted a phyto-pharmaceuticals laboratory. Trade show participation has been organized or planned for SIAL, ANUGA, Gulf Food Show, Fruits Logistica, Foodex Tokyo, and SIAL-Asia. Participation in the recent SIAL show was organized for 12 companies at a cost of US$160,000 (space rental, booths, etc.). Participants covered 25% of this cost plus their own travel and personal expenses. Five participants have been lined up for the January, 1999 Fruits Logistica. (Note: HEIA is not participating due to lack of budget.)

EEA operates as a subsidized consulting firm, not an industry organization. As such it does not have a formal advocacy activity although individual members, especially Directors, do get involved in advocacy issues. ExpoLink experts are available for technical support on specific advocacy issues.

There is some level of qualifying clients, principally through the charge levied for its assistance. Additionally, companies seeking assistance are required to complete an application with a company profile, type of assistance requested, issues pertaining to product quality, current problems, competitive advantages, etc. A recent evaluation of EEA's services by SRI International gave EEA a "neutral" ranking. Since EEA has operated only one year and its technical assistance component started even more recently, we suggest this evaluation is premature and may have been based at least in part on experience with the Trade & Development Center, the predecessor to EEA. EEA's Board of Directors is composed of executives from leading export companies. The Chairman also sits on President Mubarak's Export Council. The head of its Fresh Produce Sector Committee is a major potato exporter.

EEA appears to have the prerequisites for success defined by USAID - the ability to qualify clients, the budget to hire the people necessary to provide high quality services, and a significant private sector stake in the outcome of its services. It is involved in horticulture, most notably in processed foods. It is too early in the program to judge whether there is a need to make modifications. Sustainability of the full array of services may become an issue. It appears that any connection with APRP will be limited due to APRP's focus on policy reformation, an area that is not an EEA activity. However, EEA clients should be a source of valuable information to APRP regarding GOE policies and an effective lobby group on issues of interest.

Agricultural Technology Utilization & Transfer Project - Horticultural Component (ATUT) - Horticultural Export Improvement Association (HEIA)

ATUT and HEIA are separate organizations but closely allied in their objectives. Ideally they are two parts of a total package of services for the horticultural export sector. Eventually HEIA will assume certain functions now performed by ATUT. They are therefore discussed together in this report.

USAID's ATUT Horticultural Component is "to stimulate economic growth in the private export agricultural sector through increased production, productivity and income as well as from increased post-production employment through post-harvest and marketing technology". ATUT began in October 1995 and has a completion date of September 30, 1999, extendable to 2001.

A second component of ATUT works in areas other than horticultural export development, including two programs for crop research. One program, headed by Michigan State University, is working in the area of genetic research and engineering. The other, coordinated by the U.S. Department of Agriculture, is engaged in cereal crop research. Since the two components - horticulture and crop research - are very different in their objectives and activities, references to ATUT below refer only to the horticultural component.

ATUT is working with large Egyptian growers/exporters and export traders to increase the export of four principal crops: grapes, mangoes, melons, and strawberries. These crops were selected on the basis of market opportunity, profitability, employment, income generating potential, and resource use efficiency. A second tier of crops has been selected should it become practical to increase the scope of ATUT's activity. We would like to see ATUT identify the next small farmer crop with export potential and work with exporters to develop it to the level of success that has been attained with green beans.

ATUT has assisted its clients with the following services: establishment of an on-farm water management program, assistance in establishing post-harvest cooling and packing facilities, establishment of a transportation assistance center, provision of market and technical information and assistance, and creation of a management development program. ATUT's success results from two principal factors: (1) its ability to provide technical assistance to qualified growers committed to attaining export quality product; and (2) the subsequent creation of successful export operations, which success interests other qualified companies to further develop or enter the horticultural export business. This is important not only for the economic benefits increased exports will bring but also because the development of the export sector also leads the way for further development of the domestic horticulture sector.

ATUT also established the Horticultural Export Improvement Association as a vehicle to which ATUT's sustainable activities can be transferred and to organize sector participants for advocacy on issues related to export-related horticultural development. HEIA is a non-profit membership-driven association established in mid 1997 with a $325,000 AID grant. Membership has grown rapidly and is currently about 70. Members pay LE 6.000 to join and annual dues of LE 1,000. Lower entry fees and dues have been established for members that are not large companies. HEIA operates independently of ATUT but does source technical expertise through ATUT.

HEIA's mission is to assist horticultural producers and exporters in promoting the expansion of sustainable exports through assessing modern production technology, state

of the art post-harvest practices, and market information. Its principal activities currently include: four commodity councils (grapes, mangoes, strawberries, melons) to coordinate member interests, a packing house inspection program, technical and marketing seminars and consultancies (its own and with ATUT), license of a strawberry variety from Italy's Zanzi Fruit Company, and recent establishment of an advocacy committee. HEIA is preparing a proposal for a study to develop recommendations for improving the adequacy of the Cairo International Airport air cargo terminal for handling horticultural products. Current facilities are inadequate because they break the cold chain when loading fruits and vegetables into containers. The Center for International Private Enterprise (CIPE) has offered to underwrite this survey. HEIA also has a strategic plan that lays out further development of these activities as well as new activities to initiate as it gains financial and organizational strength.

The key issue facing ATUT and HEIA is whether they will be able to institutionalize ATUT's technical service capability in HEIA. If they can, the long-term ATUT objectives will be realized. If they cannot, the expansion and development of the horticultural export business achieved by their combined efforts during ATUT will falter. To this end USAID should exert every possible effort to insure the successful transfer of ATUT capabilities to HEIA.

Actions need to be taken in two or three areas to achieve this. First, ATUT's Horticultural Component should be established independent of the ARC. Second, HEIA must strengthen its staff capabilities. Third, there may be a need for to establish an endowed fund to support specific ATUT activities in HEIA which fees from membership services may not cover.

ATUT is under the overall management of the Agricultural Research Center. As such, it appears its Horticultural Component does not have the autonomy USAID studies deem necessary to isolate effective trade and investment promotion projects from decisions made on a basis other than dedication to project objectives. ARC is a research-oriented agency whereas ATUT is oriented to commercial development. This results in decisions on current activities that are counterproductive to USAID's objectives for ATUT. It is possible that counterproductive decisions will also be made regarding the locus to which ATUT capabilities will eventually be transferred. Current USAID-GOE discussions for the extension of ATUT to 2001 offer the only opportunity USAID is likely to have in obtaining the autonomy ATUT needs to meet its objectives. Such independence might well follow the models of successful horticultural development projects in Latin America.

HEIA is aware of a pressing need to strengthen its staff capabilities. Its success under the leadership of its new Executive Director, very active Board, and institutional strengthening consultant is remarkable. In fact, it appears to have come so quickly and with such increasing momentum that the current staff is on the verge of being overwhelmed. HEIA is working to resolve this situation, but the level of current activity hampers the effort. While HEIA, like any other young organization, should be left alone

to struggle with most of these growth issues, it may need short term, highly- focused assistance while it is resolving its organizational needs. APRP is in a position to provide HEIA assistance in advocacy issue analysis. It should do so, as well as offer to assist HEIA in its advocacy activities by including the establishment of benchmarks responsive to HEIA issues.

HEIA's goal is to become self-sustaining. However, as ATUT activities are transferred to HEIA, it may become obvious that certain activities beneficial to the horticultural sector are of a nature that HEIA member dues and fees cannot and/or should not fund. The appropriateness of this depends on how well HEIA develops profitable member services and whether it views certain horticultural improvement activities (as opposed to horticultural export improvement activities) as part of its mandate. The latter will be justified only in view of shortcomings in GOE horticultural development capabilities and member interests in domestic markets. It is strongly recommended that HEIA not pursue such activities at this time. To do so would risk failure in attaining its objectives for the next four to five years. However, the possibility of this eventuality should be considered now, including defining what activities might be considered, where they would best be located (the answer may be an organization other than HEIA), and how they might be funded.

ORGANIZING HORTICULTURAL IMPROVEMENT ACTIVITIES

Future activities related to overall horticultural improvement face significant organizational and funding obstacles. HEIA is already proving to be an effective organization and will become even more so with successful transfer of ATUT functions. However, it is focused on exports, which are the purview of large growing and/or trading operations. Small holder involvement (less than 5 feddans) is indirect, limited to involvement in exports through growing contracts or other supply arrangements with large exporters. Further, as an industry association its activities will be limited to those which its members will support through dues and fee-for-service activities. Various GOE offices and cooperatives are working in horticulture but they are not fully able to provide the support needed to address sector development for either export or domestic markets. Activities which might be required to promote development of the non-export sector, composed mainly of small farmers, might include gathering and disseminating market information, establishing domestic produce grades, assisting in farming technology transfer, assisting in establishing packing and grading operations and cooling houses. These are the same types of services provided by ATUT/HEIA but with an orientation to small farmers and traders who serve the domestic market.

Three other private, non-host government models in addition to ATUT/HEIA have been reviewed briefly as possibilities for organizing general horticultural improvement activities. All are focused on export development but they may well lend themselves to domestic issues also. We have not located any models that target domestic horticulture development, but all have had an impact on domestic development.

Fundacion Chile (FCh) is a joint venture established by the Government of Chile (GOC) and International Telephone & Telegraph (ITT) under special political circumstances in 1976. Its objective is to identify and systematically incorporate new technologies into Chile's economy. It focused on four areas: industry, marine resources, forestry products, and electronics. Its establishment was accompanied by $25 million each (1976 dollars) from the GOC and ITT. FCh had a governing Board of Directors independent of the GOC. Its initial management and technical staff consisted of highly experienced expatriate staff provided through ITT. Its financial resources gave FCh virtually unlimited access to technical and marketing expertise. A unique aspect of FCh activities is its policy of establishing pilot operations to test and prove technologies it is recommending for promotion in Chile. When successful these pilot projects are sold; when unsuccessful they are closed. This has been especially lucrative for FCh in the development of Chile's salmon industry. In horticulture FCh took much the same development approach as ATUT and other USAID horticultural development projects, in identifying windows of opportunity in target markets. It benefited greatly from its unique geographical situation allowing it to produce a great variety of produce at different times during the year. It also established a "quality seal" program as an indicator of quality product to export market buyers.

Costa Rica's Coalition for Development Initiatives (CINDE) was established through USAID in the early 1980s. When in full operation its annual budget approximated US$3 million. USAID's support included a trust fund that still contributes to CINDE's income. CINDE's activities focused on investment promotion in targeted industries (e.g., electronics, agriculture, export promotion, and training). Its agriculture department, which is still in existence, was charged with identifying export market products in which Costa Rica could compete and introducing these products into the domestic agricultural economy. CINDE was very successful in introducing and/or promoting the expansion of cut flowers, ornamentals, pineapples, melons, and orange juice concentrate. It had some ability to call on technical expertise to assist in the introduction of crops and resolve production and post harvest problems. CINDE had a remarkable degree of autonomy from the Government of Costa Rica, the budget to attract staff who could deliver high-quality services, and strong connections to the private sector.

Along totally different lines are the private horticultural producer groups in the United States such as SunKist and the U. S. Potato Board. SunKist began as a marketing order cooperative and the Potato Board as a domestic market development and advocacy group. At the time of their establishment their members were already following the latest production techniques and the distribution system for their products was fairly well established. They benefited from effective government programs in varietal and processing research and market information. Hence, they did not need an organization for elementary production and marketing development purposes. These organizations are financed by dues from their members, the amount of which is usually tied to the member's level of sales. Recently, many have received grants from the U.S. Department of Agriculture for export market development. Funding levels for the grant programs are

heavily dependent on political factors and have decreased over time. However, the initial grants proved their worth and many organizations have increased member dues in order to generate funds for international market development.

Several common success factors emerge from the development models. First is the necessity for independent funding. This springs from the very nature of the work - development - and from the need to be autonomous. As the value of services delivered comes to be appreciated, these organizations are able to charge for them. However, they also maintain an independent source of income to fund developmental activities that do not generate income. Second is independence from government/political influence. The organizations are free to choose and pursue necessary activities to achieve their objectives. Third is a high degree of focus. The organizations do not pretend to be all things. They have very specific objectives and focus on activities that are crucial to attaining these objectives. Fourth is the presence, at least at the start, of management and technical expertise having extensive international experience. Because the projects are geared toward change, they require staff who are less willing to do things in ways which are traditional in the host country. These differences may cover everything from management systems/style to application of technology in the field. Fifth is ready access to short-term technical assistance: in areas from production to processing to transportation to marketing.

APRP should conduct an in-depth analysis of several organizations, which provide lessons in establishing a private developmental association to promote development of the domestic horticulture sector. Such organizations might provide a variety of services including market information, technical services, policy analysis and advocacy, and strategic investments in promising, non-traditional new ventures which cannot attract capital from traditional sources. Because of its work in evaluating similar organizations, USAID will be able to provide valuable suggestions in this regard. Contact should also be made with the World Bank, which has reputedly established a small (US$5 million endowment) Fundacion Chile type of organization targeted at agriculture in Uruguay.

APPENDIX A

HORTICULTURAL EXPORT IMPROVEMENT ASSOCIATION TASK FORCE MEETINGS SUMMARIES

Note: Some of the statements made at the Task Force meetings were contradicted in subsequent interviews. These comments have not been incorporated into the following summaries.

Transport Constraints and Related Policy Issues

1. Air terminal cold storage capacity at Cairo airport is small and outdated. If shippers do not coordinate truck arrivals at the airport with plane departures, the truck must wait for transfer to the cargo hold (which may be a problem during the summer), and product may sit in unrefrigerated storage or in the open before and even after palletizing. (In well-managed and equipped terminals, palletizing and transfer to air cargo containers is done in a refrigerated area). Breaks in the cold chain are a common result. Improved management procedures are needed and perhaps new capacity is needed. Can the private sector build within the customs area of the airport? If so, this constraint is less a policy issue, but rather a private sector investment decision.

   Additional information and analysis will be provided in the HEIA study funded CIPE.

2. Total air cargo volume handled by Egypt Air is low and subject to passenger displacement, and flight frequency is not sufficiently regular. GOE policies directly affect the operation of Egypt Air, a public company. Air cargo rates for Egypt Air and competitive carriers may also be too high compared to regional competition. (Competitive carriers are now allowed in Egypt under the Open Skies agreement, so Egypt Air no longer enjoys a monopoly position). High rates reflect a policy constraint if GOE can lower the rate schedule to a more competitive range through IATA. Conversely, if high rates reflect only an absence of sufficient inbound cargo, which permits competitive backhaul rates, then the problem is not one of policy.

   Suggested actions include:

   - Examine Air Egypt freight rates, flight frequencies, and cargo availability to regional destinations compared to export competitors.
   - Compare Egypt Air freight rates to regional competitors.
   - Examine IATA's rate making mechanism, determine if the rates are binding and identify steps GOE can take to change rates.
   - Determine revenue impact to Egypt Air of reduced freight rates under differing scenarios of increased volume.

3. Seaport fees appear excessive and services appear inadequate because the Alexandria port is owned and operated by GOE. The fees and services may not favorably compare to those offered by competitive seaport operators. GOE claims to have privatized some of the services, but have the services improved? A related high cost is the GOE fee (tax) on containers moving from/to the port. (LE 1200 for "cold" refer, LE 900 for "warm" refer for hookup on the vessel. and LE 900 for non-refer container). The fee structure appears arbitrary.

   Suggested actions include:

   - Examine seaport fee structure compared to regional ports.
   - Examine quality and quantity of seaport services. Which have been privatized? Has there been any improvement in services offered?
   - Assess privatization potential for the entire port or significant components. Ensure a means of avoiding monopoly control by one private operator.
   - Study GOE fees on containers moving through the port. What is the justification for the fee? What is the cost basis for the different fees?

4. The supply of refrigerated trucking equipment is inadequate. The reasons include a 20% tariff on refrigerated truck imports, the high cost and low quality of domestically produced refrigerated trucking equipment, and high financing costs (interest rates and collateral requirements).

   Suggested actions include:

   - Compare the costs of domestic and imported trucks (including finance costs).
   - Identify quantity of imported truck and trucking equipment and domestically produced equipment. Compare with volumes of exported horticulture products.
   - Determine GOE revenue impacts of tariff reductions and suggest alternative transport related revenue measures. Lobby GOE to reduce the tariff and implement alternatives.

5. Reliable trucking services are unavailable from either publicly owned companies or governorate level co-op trucking services.

   Suggested actions include:

   - Identify publicly owned companies and fleet sizes, ages of stock, etc.
   - Identify co-ops that provide trucking services and identify fleet size, etc.
   - Assess the operations of selected publicly owned companies and selected co-ops and contrast with private truck operators.
   - Examine privatization potential for some or all of these services.

6. Restrictions on Egyptian truckers shipping outside Egypt and on non-Egyptian truckers shipping within Egypt inhibit efficient transportation. High fees are imposed, third-country border priorities favor non-Egyptian truckers in the region, Egyptian truckers are restricted from passing through Jordan (though loading in Jordan is permitted), non-Egyptian truckers are prohibited from backhauling unless they have a specified contract, Egyptian trucks cannot backhaul from Jordan or Syria, Egyptian truckers must off-load at the Saudi border for all exports to that country, etc.

   Suggested actions include:

   - Study trucking regulations and fees on Egyptian and non-Egyptian truckers. Are they reasonable?
   - Evaluate alternate taxes and fees that offer revenue potential for GOE in exchange for changes in regulations. Lobby GOE.

Agricultural Pesticides Policy Issues

General agreement exists that current GOE law and implementation procedures for using pesticides in agriculture creates a negative impact on GOE policy goals. The overall goals of GOE pesticide regulation are to safeguard and enhance the safety of human health and to protect the environment. However, the implementing policies prevent the use of post-1970's products which are more effective. Implementing regulations contravene international health organization labeling protocols designed to protect agricultural chemical users and end-product consumers.

The major problem cited is the GOE's effective ban on US EPA agricultural chemical classifications B and C. These products, characterized as probably and possibly carcinogenic, respectively, but not proven carcinogenic (class A) are used in more advanced agricultural economies. The HEIA Task Force participants believe GOE should allow the use of these products subject to appropriate testing procedures and application regulations.

A second major issue pertains to the GOE's procedures for approving labels. The GOE is a signatory to FAO and WHO protocols requiring certain information to appear on labels. In practice, however, reviewing GOE officials do not always adhere to these protocols. The result is that certain information required by these international protocols does not always appear on the labels of agricultural chemicals sold in Egypt. Examples include ingredients, frequency of application recommendations, and pre-harvest interval recommendations. Failing to include this information can result in harmful effects to the handlers and users of these chemical products and to consumers of the affected produce.

A third major issue is inadequate specifications for allowable post-harvest residue levels, creating three adverse effects. One, it may adversely affect the Egyptian

consumers' health by having higher allowable levels than are accepted elsewhere. Two, the allowable residue levels may be unrealistically low, thereby reducing the efficacy of chemical use with its resulting impact on produce yield and quality. Third, it can result in rejections of Egyptian produce in export markets for not meeting the allowable pesticide residue levels of those markets.

Finally, there is a problem of differing policies and/or regulations for the registration of pesticides with the MALR and the MHH (Ministry of Human Health). Since MHH is more liberal, products are sometimes registered with it rather than MALR but used on agricultural crops.

Problems one and two above will be resolved for the most part by proper implementation of the new agricultural pesticide law (Ministerial Decree No. 663 of 1998). However, this Decree, while promulgated on May 5, 1998 still requires discussion and approval of its implementing procedures. This is in the hands of two GOE committees – the Pesticides Committee and the Recommendation Committee. Each has 25 members and all 50 members must agree on all decisions. It was reported that the Committee members are paid on a per-meeting basis, creating an incentive to prolong their deliberations.

HEIA's pesticide advocacy program should focus on the following.

1. Monitor and advocate for implementation of the new pesticide decree in a way that is timely and adheres to the spirit of the decree. This will include lobbying against Ministry approval of special requests that contravene established policies and regulations.

2. Establish pesticide (and other chemical) residue standards and testing procedures for both domestic and export crops that are fully integrated with those of principal export destinations for Egyptian crops. Egypt's standards should incorporate the most stringent of these standards so that its export crops will be allowed entry into all of these countries.

3. Establish appropriate coordination and integration between the MALR and MHH for registration and testing of agricultural pesticides.

This program will address the following specific problems raised at the Task Force meeting:

1. Ministry approval for specific petitioner import of certain registered and non-registered pesticides.
2. B and C category pesticide use not allowed.
3. New product registration is very difficult.
4. Protocol allowing only certain alternative products on sucking pests.
5. Restrictions on pesticide use on citrus (complete) and vegetables (partial).

6. All members of the implementing committees for the new pesticide law must agree on all decisions.
7. Only EMIPAC is allowed to import certain products regardless of manufacturer.
8. EMIPAC exercises monopoly control over prices of these products.
9. Some EMIPAC imported products are old or adulterated.
10. Consumer protection information is removed from the label in the MALR review process.
11. Resistance information is removed from the label in the MALR review process.
12. Smuggling of unapproved and disallowed products into the country.
13. Bureaucratic procedures in label review process.
14. MALR failure to follow international health organization protocols to which it is a signatory.
15. MALR label review procedures remove information the farmer should have.
16. Inadequate regulation pertaining to pesticide residues.
17. GOE policies and regulations have limited the use of pesticides to out-dated technology.
18. Registration is a long and hectic process of testing and validating.

It does not address the following problems that were raised:

1. The new law specifies standardized containers (0.5, 1 and 5 feddans). Not considered serious enough or practical to address at this time.
2. Inadequate Extension Service capabilities except for cotton. Beyond the scope of HEIA advocacy interest and impractical to address.
3. Inadequate quality assurance system. The person who recommended this envisions a system of nationwide, random testing of soils and produce by HEIA to assure export market authorities that a system is in place controlling pesticide residues at acceptable levels. This is not an advocacy issue. If the proposal were to advocate that GOE put such a system in place, that proposal requires development of procedures that will be accepted in export markets.

Intellectual Property Rights Policy Constraints

Owners of patented varieties (or with TradeMark) lack protection safeguards in Egypt. Unscrupulous producers can propagate patented material and resell under a different name and at a lower price. Legitimate buyers are thus at a competitive disadvantage as they incur royalty costs. This is possible because Egypt has no plant variety (PVP) legislation nor does Egypt participate in the Union for Protection of Varieties (UPOV) convention.

This problem is real. International seed traders have blacklisted Egyptian seed companies because of alleged illegal use of registered varieties. The problem is

particularly acute for single cross hybrid seeds and fruit plantlets and rootstock which can be easily copied.

Suggested policy solutions:

1. Egypt joins UPOV. This process is well underway. GOE has drafted and submitted a protocol to UPOV in Brussels. The commission has requested some changes in the draft, but there appears to be no deal-breaking problems. However, UPOV acceptance is contingent on passage of the new seed law before the People's Assembly, as UPOV requires strong Plant Variety Protection Legislation. This should be accomplished by early 1999. (UPOV stipulates that Egyptian authorities test a new variety for two years to prove DUS (distinctiveness, uniformity, and stability). However, if the variety were already registered by a UPOV member, the two years of DUS testing would not be required in Egypt.)

   Suggested actions:
   - Monitor the UPOV and seed legislation process.
   - Participate in GTZ sponsored Seed Industry workshop in May 1999 to discuss specific policy initiatives to solve seed constraints. The intended result of the workshop is to establish a small GOE committee to vet the workshop recommendations and to seek Ministerial decrees to implement the recommendations.

2. The authorities responsible for phyto-sanitary testing (Phyto-sanitary Authority within MALR) and for certification (CASC for vegetable seeds and for fruit planting material) need to jointly administer the process of importing seeds and planting material. A protocol must be established to certify and then register the material under its official name. Then planting materials being sold under different names but suspected of originating from the registered material can be checked. Sanctions to prevent illegal copying must be established.

   Suggested actions:

   - Examine the current phyto-sanitary testing, certification, and registration process to determine steps necessary to achieve a protocol.
   - Document how such protocols achieve results in other countries and at relatively low cost (?).
   - HEIA lobby MALR.

3. Egyptian growers must inform grocers in export destination when the growers have licensed rights to protected varieties (e.g., the importers should not accept the protected variety from Egyptian exporters not possessing a license).

   Suggested actions:

- This is exclusively HEIA's role.

4. Egyptian growers should keep the licensor aware of suspected illegal use of the variety. This allows the licensor to take action to confiscate protected varieties imported under a different name.

   Suggested actions:
   - This is exclusively HEIA's role.

5. Initiate HEIA awareness campaigns to inform HEIA and non-HEIA growers.

   Suggested actions:
   - This is exclusively HEIA's role.

Tax Policy Issues

The issue of taxes is too complex to be categorized similarly to the transportation issues. Below is a summary of the major points of the Task Force discussion and the actions believed necessary to further HEIA's advocacy objectives.

Nine specific tax laws (as amended) have a direct impact on the horticultural sector. All but the Agricultural Land Tax apply to other businesses as well.

#9	Customs duties
#11	General sales tax
#46	Development tax (a surcharge on individual income tax)
#56	Buildings tax
#70	Property taxes
#111	Stamp tax
#113	Agricultural and tax
#147	Development duty
#157	Taxes on income and profits – corporate and individual

Social security taxes were mentioned but left off the list of taxes to be considered for reform.

Indirect taxes were discussed briefly, but the consensus was they are too complicated to address at this point.

Various suggestions were made for tax reform that will reduce taxes on horticultural products and thereby spur horticultural product exports. Enactment of a subsidy on horticultural exports was also raised, being much simpler to administer. It was pointed out, however, that such subsidies would not be allowed under WTO

provisions. Arthur Mann pointed out that it is not good tax policy to request special treatment for a narrow area. He suggested the area to be considered be agriculture, rather than horticulture.

The consensus of the discussion was that a number of actions are necessary to identify the impact of current tax policy, how it affects Egyptian horticultural exports, and possible reforms that will increase the competitive position of Egyptian horticultural exports. These actions include:

1. Identify and quantify taxes imposed in Egypt that affect the production and export marketing of Egyptian agricultural crops – horticultural, cotton, rice, planting seeds, groundnuts. Objective: determine the monetary impact of current taxes on the cost of Egyptian agricultural exports.
2. Determine the impact of taxes on horticultural crop exports from Egypt and major competing countries on Egypt's competitive position in target markets. Objective: Determine where Egypt is being priced out of the market solely because of taxes which are higher than those imposed in competing countries (e.g. Chile, Israel).
3. Determine benefits to be gained by Egypt from reduced tax levels on Egyptian horticultural exports – new jobs created, increased foreign exchange earnings, incremental income tax generated, greater food self-sufficiency which will partially or completely offset GOE revenue losses from reduced taxes on horticultural products. Objective: Develop information that can be used to convince the GOE that proposed tax reforms are economically and politically good for Egypt.
4. Formulate a proposal for tax relief that HEIA will advocate to the GOE.
5. If appropriate, share information developed in 1, 2 and 3 above with other export crop associations to create a broad sector coalition seeking policy changes.

APPENDIX B
PERSONS INTERVIEWED

Business - Private Sector

Abdou Badawi
Produce Exporter

Centech Agriculture Division
Dr. Mohamed Adel El Ghandour
Manager

CIM Group

A. A. Aziz	Mohammed Medhat Mahgoub
Managing Director	Director & General Manager
Chipsy	Industrial & Food Supplies

Comptoir Egyptien De Representations (Chaerpak)

Nabil Habib	Salah E. Wahba
General Manager	Commercial Manager

Delta Export
Amgad Mounir Rady
Managing Director

Daltex

Eng. Samir El-Naggar	Hisham S. El-Naggar
Chairman	Export Promotion Manager
Ahmed Mohd. Nassar	Osama El Sabaawi
Alexandria Office	Alexandria Office

Diab Agriculture Reclamation (PICO Group)
Farouk Kandil
Marketing Director

El Aguizy International Company for Development

Hussein El Aguizy	Karim Afifi	Ibrahim El Nashar
Chairman	Planning & Follow-Up Manager	Manager/Director R&D Strawberry Manager

Golden Company for Transportation

Tarek Belal	Hesham Belal
General Manager	Executive Manager

Hage International BV
Hans Korsten
Manager, Egypt

Maamoun Cold Stores

	Adel Maamoun	**Ali Ghobashi**
Chairman	Manager	

Maersk Egypt

Hisham G. Helmy	Philip Littlejohn	Jens Flo
Chairman	Managing Director	Manager, Alexandria

P & J (Paste & Juice Company)
Bahi El Din El Baroudi
Managing Director

Societe Egypto-Francaise pour les Industries Agri Alimenatires (VITRAK)
Mohamed Samy
Technical General Manager

United for Food Industry (Montana)
Maher Nossier
General Manager

Venus Air Cargo
Samia El-Said
President

Business - Public

Care Dallah Services Co.
(Manages El Obour Wholesale Market)

Omar Hammed	Adel Al Ashry
General Manager	Marketing Manager

Misr Cold Centers & Storage Company

Mostafa Kamel	Eng. Ahmed Salib
Managing Director	Deputy Managing Director

Cooperatives

Central Agricultural Cooperative Union
Mohamed Idris
Chairman

General Potato Growers Cooperative Union

Ahmed Marwan	Hassan Mansour
Chairman	General Manager

Associations

American Chamber of Commerce in Egypt

El Motaz Sonbol	Emilio Peroni
General Manager	Manager, Business Studies & Production Division

Horticultural Export Improvement Association
Amr M. El Tonsy
Executive Director

Consultants

William Barbee
San Jose, Costa Rica
Institutional development consultant to HEIA

James C. Delouche, Ph.D.
Mississippi State, Mississippi0
Seed consultant to APRP for the Egyptian Seed Association

John M. Elgin
Arthur Anderson Egypt
Consultant to the KADCO project in Toshka

Amer S. Jabarin, Ph.D.
University of Jordan
Amman, Jordan
Advocacy consultant to HEIA

Arthur Mann
Development Alternatives, Inc.
Bethesda, MD
Tax consultant to APRP

Anthony Way
Bannock Consulting
London. England
Association development consultant to APRP for the Egyptian Seed Association

Government

Agricultural Research Center
Laboratory of Residue Analysis of Pesticides and Heavy Metals in Food MALR)
Dr. Salwa Dogheim
Director

Alexandria Container Handling Company
Engr. Fathy Ahmed Sorour
Chairman

Alexandria Port Authority
Adm. Hassam Hosni
Director

Central Department of Agricultural Cooperation (MALR)
Engr. Samir M. Moh. Shehata
Chairman

Egyptian Export Promotion Centre (Ministry of Trade and Supply)

Dr. Mohammed Hamdy Salem	Dr. Nabila Attia	Manal Kamal Karim
Executive Director	General Director of Agriculture & Food	Research Section Head Processed Food

General Organization for Imports & Exports (Ministry of Trade & Supply)
Fakhri El-Din Abu El Ezz
Chairman

Ministry of Agriculture and Land Reclamation
Ibrahim Sheta
Undersecretary of Horticulture

National Research Center (MALR)
Dr. Mohammed Beltagi
Chairman, Horticultural Department

Union of Producers & Exporters of Horticultural Crops

Ali Abou Gazia	Ahmed Fouad
Chairman	General Director

USAID Projects

Agricultural Technology Utilization & Transfer Project

Kelly M. Harrison, Ph.D.	Engr. Yasser Essam

Chief of Party	Transportation Coordinator
Ricardo Frohmader Marketing Advisor	Antonio Lizana, Ph.D. Horticultural Advisor

Center for International Private Enterprise
Ibrahim Osta
Manger, Public Affairs & Association Development

Egyptian Exporters Association/ExpoLink

James L. Maxwell Technical Advisor	Yousri Tinawy Manager, Food Portfolio

Manufacturing Technology Centers
Bassel Kelada
Senior Projects Coordinator