

**EXPORT MARKET  
ENTRY STRATEGIES**

**AUGUST 26 - 30, 1991**

**WASHINGTON, D.C.**

**U.S. AGENCY FOR  
INTERNATIONAL DEVELOPMENT**

EXPORT MARKET ENTRY STRATEGIES

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MONDAY, AUGUST 26

9:00 - 9:30	Introduction and Opening Remarks	Lance Marston Melody Bacha John K. Jessup, Jr. U.S. Agency for Internat'l Devlp.
9:30 - 12:30	SEMINAR: U.S.A.I.D. POLICY CONCERNS	Harvey Wallender IESC  Cliff Barton I.M.C.C.
12:30 - 1:30	LUNCH	
1:30 - 3:30	SEMINAR: U.S.A.I.D. POLICY CONCERNS	Harvey Wallender I.E.S.C.  Cliff Barton I.M.C.C.
3:30 - 5:00	Work Group Exercise: Project Orientation and Setup for a Practical Week-long Exercise in Planning and Implementing an A.I.D. Export Oriented Project	

TUESDAY, AUGUST 27

9:00 - 9:45	Introductory Remarks	Vincent Seglior Manager, Int'l Trng. World Trade Institute
	<ul style="list-style-type: none"><li>. Overview of World Trade Institute and The Port Authority of New York and New Jersey</li><li>. Introduction of Specialists</li><li>. Participant Introductions and Expectations</li></ul>	
Seminar:	<u>A SUITABLE POLICY AND BUSINESS CLIMATE FOR LOCAL EXPORTERS</u>	
9:45 - 10:30	<ul style="list-style-type: none"><li>. Policy and institutional issues affecting export business in developing countries</li></ul>	Julian Velez
	BREAK	
10:45 - 11:15	<ul style="list-style-type: none"><li>. Business climate conducive to export</li></ul>	Julian Velez Beth Phillips Robert Sullivan
11:15 - 12:30	<ul style="list-style-type: none"><li>. Support systems and services required to sustain the growth of export ventures</li></ul>	Julian Velez Beth Phillips Robert Sullivan
12:30 - 1:30	LUNCH	
1:30 - 2:30	<ul style="list-style-type: none"><li>. A Country's Comparative and competitive advantages for export development</li></ul>	Beth Phillips
2:30 - 3:30	<ul style="list-style-type: none"><li>. Objectives, purposes and outputs of export projects</li></ul>	Julian Velez
	BREAK	
3:45 - 5:00	Work Group Exercise: Stage II	
	<ul style="list-style-type: none"><li>. Barriers to Export Development</li><li>. From Import Substitution to Export Promoting Strategies</li><li>. Governmental Regulations Barriers and Reform</li></ul>	

WEDNESDAY, AUGUST 28

Seminar: THE MARKET: WHO BUYS, WHO SELLS, WHO PAYS

9:00 - 9:20	. The marketing mix and its implications for exporters	Beth Phillips
9:20 - 10:00	. Market research and product planning - Agricultural Products; Textiles; Light Industry	Robert Sullivan Beth Phillips Julian Velez
10:00 - 10:45	. Distribution channels	Julian Velez Beth Phillips Robert Sullivan
	BREAK	
11:00 - 11:30	. Promotion	Beth Phillips
11:30 - 12:15	. Pricing	Julian Velez Robert Sullivan
12:15 - 1:15	LUNCH	
1:15 - 2:15	. Development of Trading Companies in Developing Companies	Herb Ouida Director XPORT Trading Company
2:15 - 3:30	. Commercial transactions in selling - Letters of Credit - Other Forms of Payment - Factoring	Robert Sullivan Julian Velez Beth Phillips
	BREAK	
3:45 - 5:00	Work Group Exercise: Stage III	
	. Product Identification and Development	
	. Business Services and	

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FRIDAY, AUGUST 30

Seminar:	<u>THE FLOW OF PRODUCTS TO MARKET: AGRIBUSINESS;</u> <u>TEXTILES; AND INDUSTRY</u>	
9:00 - 9:30	. Post-harvest Handling	Julian Velez
9:30 - 10:00	. Packaging, processing and storage of export goods	Julian Velez Beth Phillips Robert Sullivan
10:00 - 10:30	. Documentation and freight Forwarding	
	BREAK	
10:45 - 11:30	. Transportation and insurance	
11:30 - 12:30	. Customs and import regulations	
12:30 - 1:30	LUNCH	
1:30 - 2:00	. Product Distribution and sales	Julian Velez Beth Phillips Robert Sullivan
2:00 - 2:20	. Legal aspects of exporting	
2:20 - 3:45	Work Group Exercise:  . Formal Presentations by Work Groups	
3:45	Closing	

# **FUNDAMENTAL REQUIREMENTS FOR SUCCESSFUL AGRIBUSINESS EXPORT ACTIVITIES**

by

Julian Velez, Ph.D.  
Cynthia Steen, MBA

The success of any export program for non-traditional agricultural products depends on six fundamental requirements:

- 1) identification of specific demands in strategically targeted markets that have expansion potential,
- 2) a stable and significant production base capable of supplying, with consistency and continuity, the volumes and the quality of products demanded by international markets,
- 3) innovative, efficient and resourceful management,
- 4) access to pre-harvest and post-harvest technology,
- 5) financial resources, and
- 6) other support systems such as skilled labor, complementary services, research, technical assistance, etc.

Intrinsic requirements beyond these basic production and marketing endeavors include socio-political and economic-financial environments which are conducive to exporting objectives. Furthermore, a balance of profits and responsibilities among those involved, and especially between producers and exporters, will be imperative to success. While all these factors need to be addressed, the fundamental principals always focus on making purchase of the product as effortless for the buyer as possible.

The greatest financial returns from export activities are only possible through the identification of appropriate markets. These markets (target markets) would have several desirable characteristics: highest paying, easy access, sound financial base, adequate facilities to protect the products, good inter-personal relationships, etc. Optimal timing of deliveries to take advantage of marketing windows must also be specified. In addition, precise knowledge of what each market wants, when supply is lowest and prices highest and how the market operates (distribution networks, marketing channels, specialty and ethnic markets, high-volume terminal markets, etc.) is vital to success. All of these facts are meaningless if the exporters do not have the commitment and the perseverance to remain in the market in "good" and "bad" times.

Different markets have different preferences relative to variety, size, maturity, etc. Information systems must therefore exist to collect, process, analyze and distribute crucial

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information (prices, volumes, standards, etc.) from significant markets to all of those involved in the export operations at all levels, including the producers.

Production systems and cultural practices must be in accordance with specific market standards to maximize shipments of the most marketable sizes and best quality specifications. Harvest timing must correlate with market demands in order to hit market "windows" and sell at premium prices. By understanding the requirements and idiosyncracies of the individual markets, the exporter groups can further simplify purchase of their products by using preferred packaging, containerization, palletization, unitization, etc.

Export markets require a highly consistent product as far as quality and standardization is concerned. This means the product must have uniform color and size within the package. When the buyer opens the package the visual effect must be aesthetically pleasing and symmetrical. To achieve this consistency, optimal varieties and cultural practices that guarantee uniformity are essential. Quality assurance measures and procedures must be in place before and after harvest to protect uniformity and marketability of the products. Highly trained and skilled labor will therefore be required, as well as effective management at all stages of production, handling and shipping.

The term "quality" further refers to a product which is fresh, with no external or internal damage. Appropriate post-harvest procedures are essential to achieve these specifications. Pre-cooling the product after harvest (and before packing) to lower field heat will greatly extend shipping and shelf life. Success in these post-harvest operations will, again, depend on highly trained labor and management possessing competent and timely technical expertise and planning skills.

A stable and adequate production/supply base that operates under economics of scale is another of the keys to success. Significant volumes of uniform quality are required to attract the interest of prospective buyers and to make post-harvest handling, transportation and shipping efficient and less costly. The buyer must also be convinced that similar volumes can be expected in succeeding seasons in order to build and expand distribution networks. Furthermore, producers and exporters will need the ability to forecast shipment volumes, determine appropriate destinations and optimal timing of arrivals in order to consolidate their position in the market, increase pre-selling activities and carry out financial and logistical planning in advance.

In cases where the production base is highly dispersed and land ownership is limited to relatively small tracts of land, a stable and significant production foundation is only possible by grouping producers together. There are other numerous compelling

reasons why growers should consolidate and form strong associations. The concept of "strength in numbers" applies very well to the objectives of exporting non-traditional agricultural products. By forming associations and pooling their collective production and marketing resources, the growers have the best chance of achieving their goals. In addition:

- \* Volumes much greater than the individual farmer could produce are required for successful exporting.
- \* Ability to deliver a standard product in terms of production, harvest and post-harvest procedures, quality control, consistency in packing, etc. is necessary.
- \* Economies of scale will be realized in every activity undertaken.
- \* Pooled financial resources with potential to:
  - efficiently access and distribute market information,
  - hire technical, marketing and managerial assistance,
  - finance research and development projects, and
  - open sales offices in important destination and locations to increase the ability to promote and market their products.
- \* Utilize a "pooling" payment system to reduce risks associated with harvest timing and extraordinary market conditions.

It should be emphasized that these grower groups will remain together as long as the export activities are profitable. Experience shows that this is only possible through strong marketing efforts. The organizations, in addition to selling products and positioning themselves in the market, also collect, analyze and distribute critical market information, allowing members to maximize their production efforts and receive maximum financial returns. However, each grower is responsible for his own production in terms of volume and quality and will profit or lose in direct relation to their own enterprising ability.

## **MODEL FOR AGRIBUSINESS DEVELOPMENT FOR EXPORT FOCUSING SMALL GROWERS**

by

Julian Velez, Ph.D.

Agribusiness development for export has special technical, administrative, managerial, financial, logistical and socio-economic requirements in order to respond efficiently to market quantity and quality demands on a continuous basis. The "Sustainable Agro-Enterprise Development Model" (SAEDM) makes sure these requirements are satisfied as needed. This model includes the following elements:

1. Agribusiness should be market driven meaning the supply of highly demanded products to market, the implementation of the logistical systems to facilitate the flow of these products to consumers, the utilization of postharvest technology and infrastructure to assure product quality and shelf-life, and the assurance of a steady production base to guarantee the timely delivery of an attractive product volume to buyers.
2. The socio-cultural environment of the farmer groups involved must be taken into consideration, and their significant problems and opportunities must be addressed in order to secure their interest and commitment in sustaining the business.
3. Rural enterprises must concentrate on the efficient management and utilization of locally available resources with emphasis in the conservation of the non-renewable natural resource base. The delicate equilibrium of the existing farming systems must be improved, and the traditional strengths of the farmers must be the foundation to launch the development of such enterprises.
4. The dimensions of the business, in volume and quality of products, should be established in such a way as to increase the interest of buyers and/or potential investors/partners and facilitate economics of scale and logistics. The unit cost of the products sold must be kept at a minimum to assure the enterprise competitive edge and viability.

5. **Competitive advantages such as access to markets, growing conditions, seasonality of products, quality, existing infrastructure and others must exist.**
  
6. **Support systems such as government policy and incentives; efficient infrastructure; research and extension; credit; skills enhancement; complementary and supportive enterprises; and access to land, labor, inputs, equipment, spare parts and related services must be present or developed along with the agribusiness.**
  
7. **The business must be able to survive and sustain itself in the "real world". In other words, it should not depend on dole-outs and paternalistic interventions, and must rely on available resources and support systems such as commercial credit lines, government incentives, private entrepreneurs, etc.**

## **HOW TO CHOOSE A MARKETING AGENT FOR AGRICULTURAL PRODUCTS**

A reliable marketing agent has several desirable characteristics. Some of the key attributes to look for are:

- \* **Good Reputation**
  - extensive past experience with specific products
  - well known in the industry
  - well respected by peers
  - respected for honesty
  - willing to negotiate commissions in times of erratic market conditions
  
- \* **Financial Stability**
  - listed in both Red and Blue books
  - references available
  - open disclosure of accounting documents, procedures and transactions
  - responsible for receivables
  
- \* **Strong Distribution Network**
  - East and West coast offices (desirable)
  - regularly attends appropriate trade shows
  - member of pertinent marketing associations
  
- \* **Own or Access to Cooling and Storage Facilities**
  - adequate capacity
  - locations in key arrival and destination points
  - minimum charge for storage services
  
- \* **Linked to Distribution Network**
  - trucks, rail, etc.
  - willing to negotiate and/or share in freight costs
  
- \* **Good, Open Communication**
  - willing to share market information (volumes, pricing, quality concerns, competitive activity, specific client preferences, etc.)
  - frequent communication
  - excellent inter-personal relationship

**Note:** It is advisable to work with more than one broker in order to cross-check reliability of information, etc.

**Julian Velez  
Cynthia Steen**

## **COMPARATIVE ADVANTAGES OF ASPARAGUS FROM PERU, SOUTH AMERICA**

Asparagus is grown along the coast of Peru from Nazca to Piura. In the Trujillo area, the asparagus industry is more than 20 years old. Asparagus is produced by small and large growers in the coastal valleys and in some of the arid "pampas". The asparagus plant adapts well to the conditions of the Peruvian coast with soil characteristics such as salinity and sandy textures. The desert-like climatic features of the coast allow for water to be withheld or provided at will, to induce or break the dormancy stage required by the plant to yield optimal spear diameters.

These attributes give Peru the flexibility to harvest asparagus all year – whenever it is commercially desirable. This is perhaps the most important comparative advantage enjoyed by Peru as a producer of green and white asparagus. In addition, the dry seasonal climate is ideal to support growth and development, providing cool periods that are required to harvest high quality green spears. Moreover, an extensive production base, with very good expansion potential, has already been established.

White asparagus is harvested all year around. Green asparagus for the fresh market is usually harvested during the late winter, the spring and the very early summer (September through January). This harvest season perfectly matches the highest prices in the major markets of the world. In the month of December, Peru is the only leading exporter supplying green asparagus to the U.S. market.

Asparagus is a highly regarded gourmet vegetable with a very low calorie count, rich in carbohydrates and extremely high in fiber. Vitamin A and riboflavin are also found in significant amounts. These properties make asparagus an important component of a high fiber diet, rich in flavor and culinary appeal, with important cancer reducing qualities.

Julian Velez, Ph.D.  
Cynthia Steen, MBA

## **THE AGRIBUSINESS SYSTEM**

- 1) FIELD PRODUCTION**
- 2) POST-HARVEST HANDLING**
- 3) STORAGE AND/OR PROCESSING**
- 4) TRANSPORTATION AND DISTRIBUTION**
- 5) MARKETING**

## **CHARACTERISTICS OF A GOOD PRODUCTION BASE**

by

**Julian Velez, Ph.D.**

- 1) **MARKET ORIENTED PRODUCTION PLANNING AND DESIGN**
- 2) **KNOWLEDGEABLE AND EXPERIENCED TECHNICAL ASSISTANTS AND/OR EXTENSION WORKERS**
- 3) **PRACTICAL AND APPLIED RESEARCH PROGRAMS THAT PROVIDE "QUICK" ANSWERS TO PRODUCTION PROBLEMS AND EMPHASIZE POST-HARVEST TECHNOLOGY**
- 4) **OPTIMUM SITE SELECTION**
- 5) **SKILLED AND ABUNDANT LABOR AND ADEQUATE IMPLEMENTS AND EQUIPMENT**
- 6) **CROP ROTATIONS THAT SAFE-GUARD AGAINST PATHOLOGICAL AND OTHER PESTS AND ENSURE HIGH PRODUCTION LEVELS**
- 7) **BEST POSSIBLE VARIETIES, CULTIVARS AND PLANTING MATERIALS TO PRODUCE "MARKETABLE VOLUMES" ACCORDING TO BUYERS' SPECIFICATIONS AND QUALITY STANDARDS**
- 8) **CERTIFIED AND RELIABLE SEEDS, IMPORTED IF NECESSARY**
- 9) **HIGH TECHNOLOGY NURSERIES AND PLANTING MATERIAL PROPAGATION FACILITIES**
- 10) **SUITABLE TILLAGE, LEVELLING AND/OR CONTOURING AND SOIL DISINFECTION IF REQUIRED**
- 11) **SPACING AND POPULATION DENSITIES DESIGNED TO MAXIMIZE VOLUMES AND QUALITY FOR TARGETED MARKETS**

- 12) PRECISION PLANTING USING COMPRESSED AIR OR OTHER ADVANCED TECHNOLOGY EQUIPMENT
- 13) FERTILIZER APPLICATIONS BASED ON SOIL AND PLANT ANALYSES
- 14) MINIMUM USE OF PESTICIDES AND WEED KILLERS TO IMPROVE MARKET POSITION AND OBTAIN PREMIUM PRICES
- 15) OPTIMUM WATER MANAGEMENT THAT INCLUDES STATE OF THE ART IRRIGATION AND DRAINAGE SYSTEMS
- 16) APPROPRIATE MODERN TECHNOLOGY SUCH AS CLIMATE CONTROL AND PHYSICAL PLANT PROTECTION IF COST EFFECTIVE AND WITH SUPPORT SYSTEMS IN PLACE
- 17) HARVESTING AT PROPER "PHYSIOLOGICAL STAGE" AND FOLLOWING MARKET INDICATORS FOR QUALITY AND PRICES
- 18) PROPER POST-HARVEST HANDLING TECHNOLOGY AND PRACTICES TO PROTECT PRODUCT QUALITY AND EXTEND "SHELF LIFE"
- 19) EFFICIENT LOGISTICAL SYSTEMS TO FACILITATE SMOOTH AND RAPID PRODUCT FLOW TO MARKET OUTLETS

## **POST-HARVEST TECHNOLOGY**

**POST-HARVEST MANAGEMENT IS THE SET OF ACTIVITIES THAT TAKE PLACE FROM THE TIME THE PRODUCT IS HARVESTED UNTIL IT IS SOLD TO THE CONSUMER. THE LATTER USES SOME POST-HARVEST TECHNOLOGY AS WELL WHEN HE BRINGS THE PRODUCT HOME I.E. REFRIGERATION.**

**POST-HARVEST TECHNOLOGY IS THE APPLIED KNOWLEDGE THAT REDUCES LOSSES AFTER HARVEST, PRESERVES THE QUALITY OF THE HARVESTED PRODUCT AND PROLONGS "SHELF LIFE" OR COMMERCIAL LIFE.**

**BIOLOGICAL AND ENVIRONMENTAL FACTORS INFLUENCE THE RATE AT WHICH AGRICULTURAL PRODUCTS DETERIORATE.**

**POSTHARVEST1**

**THE MAJOR BIOLOGICAL FACTORS ARE:**

**1) RESPIRATION**

- **ORGANIC MATERIALS CHANGED INTO WATER AND CO<sub>2</sub> WITH RELEASE OF HEAT THROUGH THE USE OF OXYGEN (O<sub>2</sub>)**
- **THE LOSS OF FOOD RESERVES IN THE PRODUCT BRINGS ABOUT,**
  - \* **SENESCENCE**
  - \* **LOSS OF ENERGY VALUE**
  - \* **REDUCED FLAVOR**
  - \* **LOSS OF DRY WEIGHT**
  - \* **THE RELEASED HEAT IS VERY IMPORTANT IN POST-HARVEST MANAGEMENT BECAUSE OF ITS EFFECT ON THE DESIGN OF VENTILATION AND REFRIGERATION FACILITIES**
- **HORTICULTURAL COMMODITIES ARE CLASSIFIED IN RELATION TO PERISHABILITY ACCORDING TO THEIR RESPIRATION RATES. ASPARAGUS, BROCCOLI, MUSHROOM, PEAS, SPINACH AND SWEET CORN HAVE EXTREMELY HIGH RATES.**

POSTHARVEST2

- **FRUITS ARE ALSO CLASSIFIED ACCORDING TO THEIR RESPIRATION AND ETHYLENE PRODUCTION RATES.**
  - \* **CLIMACTERIC FRUITS CONSIDERABLY INCREASE THEIR RESPIRATION AND ETHYLENE PRODUCTION RATES DURING RIPENING. MOST TROPICAL FRUITS BELONG IN THIS GROUP.**
  - \* **NONCLIMACTERIC FRUITS DO NOT CHANGE THEIR RESPIRATION AND ETHYLENE PRODUCTION RATES DURING RIPENING. MOST TEMPERATE FRUITS BELONG IN THIS GROUP.**

## **2) ETHYLENE PRODUCTION**

- **ETHYLENE IS PRODUCED BY ALL PLANT TISSUES AND SOME MICROBES**
- **IT IS CONSIDERED TO BE THE NATURAL AGING AND RIPENING HORMONE**
- **EXPOSURE OF MOST PRODUCTS TO ETHYLENE WILL ACCELERATE THEIR SENESCENCE (RIPENING OF NEIGHBORING PRODUCTS)**
- **ETHYLENE PRODUCTION RATES ARE INCREASED BY,**
  - \* **MATURITY AT HARVEST**
  - \* **PHYSICAL INJURIES**
  - \* **DISEASE INCIDENCE**
  - \* **INCREASED TEMPERATURES UP TO 30°**
  - \* **WATER STRESS**
- **ETHYLENE PRODUCTION RATES ARE DECREASED BY,**
  - \* **STORAGE AT LOWEST SAFE TEMPERATURE**
  - \* **REDUCED OXYGEN AND/OR ELEVATED CO<sub>2</sub>**

**POSTHARVEST3**

### **3) COMPOSITIONAL CHANGES**

- **LOSS OF CHLOROPHYLL (GREEN COLOR)**
- **DEVELOPMENT OF CAROTENOIDS (YELLOW AND ORANGE COLOR)**
- **DEVELOPMENT OF ANTHOCYANINS (RED AND BLUE COLORS)**
- **CHANGES IN ANTHOCYANINS AND OTHER PHENOLIC COMPOUNDS (TISSUE BROWNING)**
- **CHANGES IN CARBOHYDRATES SUCH AS STARCHES, SUGARS AND PECTINS (CHANGES IN DESIRABLE FLAVOR)**
- **CHANGES IN OTHER ORGANIC COMPOUNDS SUCH AS AMINO ACIDS, PROTEINS, VITAMINS, ETC (LOSS OF FLAVOR AND NUTRITIONAL VALUE)**

### **4) GROWTH AND DEVELOPMENT**

- **SPROUTING**
- **ROOTING**
- **ELONGATION AND CURVATURE (ASPARAGUS)**
- **SEED GERMINATION INSIDE FRUITS (TOMATOES, PEPPERS AND LEMONS)**

POSTHARVEST4

**5)      TRANSPIRATION OR WATER LOSS**

- **DIRECT WEIGHT LOSS (LESS YIELD)**
- **LOSSES IN APPEARANCE (WILTING AND SHRIVELING)**
- **LOSSES IN TEXTURAL QUALITY (SOFTENING, LOSS OF CRISPINESS, ETC)**
- **LOSS IN NUTRITIONAL QUALITY**
- **TRANSPIRATION RATE DEPENDS ON SEVERAL FACTORS,**
  - \*      **MORPHOLOGICAL CHARACTERISTICS**
  - \*      **ANATOMICAL CHARACTERISTICS**
  - \*      **SURFACE TO VOLUME RATIO**
  - \*      **SURFACE INJURIES**
  - \*      **MATURITY STAGE**
- **TRANSPIRATION CAN BE CONTROLLED BY,**
  - \*      **SURFACE COATINGS**
  - \*      **WRAPPING WITH PLASTIC FILM**
  - \*      **MAINTENANCE OF HIGH RELATIVE HUMIDITY**
  - \*      **CONTROL OF AIR CIRCULATION RATE**

**6) PHYSIOLOGICAL BREAKDOWN**

- FREEZING INJURY
- CHILLING INJURY
- HEAT INJURY
- PREHARVEST NUTRITIONAL IMBALANCES
- LOW OXYGEN AND/OR HIGH CO<sub>2</sub> ATMOSPHERES
- EXPOSURE TO ETHYLENE
- INTERACTIONS AMONG O<sub>2</sub>, CO<sub>2</sub> AND C<sub>2</sub>H<sub>4</sub> CONCENTRATIONS, TEMPERATURE AND DURATION OF STORAGE AFFECT THE INCIDENCE AND SEVERITY OF PHYSIOLOGICAL DISORDERS RELATED TO ATMOSPHERIC COMPOSITION

**7) PHYSICAL DAMAGE**

- SURFACE INJURIES, IMPACT BRUISING, VIBRATION BRUISING AND OTHER PHYSICAL DAMAGE ARE MAJOR CONTRIBUTORS TO WATER LOSS, ENTRY OF FUNGAL INFECTION, AND STIMULATE CO<sub>2</sub> AND C<sub>2</sub>H<sub>4</sub> PRODUCTION BY THE PRODUCT

**8) PATHOLOGICAL BREAKDOWN**

- **DETERIORATION RESULTS ALSO FROM THE ACTIVITY OF BACTERIA AND FUNGI DUE TO PHYSICAL INJURY AND/OR PHYSIOLOGICAL BREAK DOWN OF THE PRODUCT.**
- **AS THE RIPENING PROCESS ADVANCES, PRODUCTS BECOME MORE SUSCEPTIBLE TO DISEASES**
- **STRESS SUCH AS PHYSICAL DAMAGE, CHILLING AND SUNSCALD, LOWER DISEASE RESISTANCE AS WELL**



**THE MAJOR ENVIRONMENTAL FACTORS ARE:**

**1) TEMPERATURE**

- **MOST IMPORTANT ENVIRONMENTAL FACTOR IN POST-HARVEST MANAGEMENT**
- **FOR EACH INCREASE OF 10° C ABOVE OPTIMUM, THE RATE OF DETERIORATION INCREASES 2 TO 3 TIMES**
- **EXPOSURE TO WRONG TEMPERATURES ALSO CAUSES PHYSIOLOGICAL DISORDERS**
- **TEMPERATURE ALSO AFFECTS THE MANNER PRODUCT ATMOSPHERE INFLUENCES SENESCENCE (O<sub>2</sub>, CO<sub>2</sub> AND C<sub>2</sub>H<sub>4</sub>), AND THE DEVELOPMENT OF PATHOGENS**

**2) RELATIVE HUMIDITY**

- **CONTROLS RATE OF WATER LOSS AT CONSTANT TEMPERATURE AND RATE OF AIR MOVEMENT**

**3) ATMOSPHERIC COMPOSITION**

- **THE CONCENTRATIONS OF O<sub>2</sub>, CO<sub>2</sub>, C<sub>2</sub>H<sub>4</sub>, WATER VAPOR AND OTHER GASES HAVE A MARKED EFFECT ON THE RESPIRATION RATE OF PRODUCTS, AND THUS AFFECT DETERIORATION AND OTHER SENESCENCE PROCESSES**

**4) ETHYLENE**

- **ETHYLENE EFFECTS COULD BE DESIRABLE AND UNDESIRABLE**
- **PROMOTES FASTER AND UNIFORM RIPENING OF FRUITS BUT COULD BE DETRIMENTAL TO QUALITY OF MOST NON-FRUIT VEGETABLES AND ORNAMENTALS**

**5) LIGHT**

- **LIGHT COULD INDUCE CERTAIN PHYSIOLOGICAL RESPONSES SUCH AS GREENING OF POTATOES, ENDIVE AND WHITE ASPARAGUS**

**6) OTHER FACTORS**

- **SEVERAL CHEMICALS SUCH AS FUNGICIDES, HORMONES, ETC COULD BE APPLIED TO INFLUENCE ONE OR MORE OF THE BIOLOGICAL DETERIORATION FACTORS**

POSTHARVEST9

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## **POST-HARVEST TECHNOLOGY METHODOLOGY**

### **1) TEMPERATURE MANAGEMENT**

- RAPID REMOVAL OF FIELD HEAT**
  - \* HYDROCOOLING**
  - \* IN-PACKAGE ICING**
  - \* TOP-ICING**
  - \* EVAPORATIVE COOLING**
  - \* ROOM COOLING**
  - \* FORCED AIR COOLING**
  - \* SERPENTINE FORCED AIR COOLING**
  - \* VACUUM COOLING**
  - \* HYDRO-VACUUM COOLING**
  
- COOLING FACILITIES SHOULD BE WELL ENGINEERED AND EQUIPPED**
  - \* GOOD CONSTRUCTION INSULATION**
  - \* STRONG FLOORS**
  - \* ADEQUATE AND WELL POSITIONED DOORS FOR LOADING AND UN-LOADING**
  - \* EFFECTIVE DISTRIBUTION OF REFRIGERATED AIR**
  - \* SENSITIVE AND PROPERLY LOCATED CONTROLS**
  - \* SUFFICIENT COIL SURFACE TO MINIMIZE DIFFERENCE BETWEEN COIL AND AIR TEMPERATURE**
  - \* ADEQUATE CAPACITY FOR EXPECTED NEEDS**
  - \* STACKING MUST BE CORRECT FOR PACKAGE AND AIR FLOW**
  - \* OVERLOADING MUST BE AVOIDED**

**- POST-HARVEST PROCEDURES**

- \* PULP TEMPERATURES RATHER THAN AIR TEMPERATURES SHOULD BE USED TO MONITOR TEMPERATURES**
- \* TRANSIT VEHICLES MUST BE COOLED BEFORE LOADING**
- \* DELAYS BETWEEN COOLING AFTER HARVEST AND LOADING INTO TRANSIT VEHICLES MUST BE AVOIDED**
- \* TEMPERATURE MAINTENANCE AT OPTIMUM LEVELS MUST BE ASSURED AT ALL TIMES**

**POSTHARVEST11**

**2) CONTROL OF RELATIVE HUMIDITY**

- **CONDENSATION OF MOISTURE ON COMMODITY IS MORE IMPORTANT THAN RELATIVE HUMIDITY OF STORAGE ROOM**
- **PROPER RELATIVE HUMIDITY IS 85% TO 95% FOR FRUITS AND 90% TO 98% FOR VEGETABLES EXCEPT DRY ONIONS AND PUMPKINS (70% TO 75%)**
- **SOME ROOT VEGETABLES CAN BE HELD AT 95% TO 100% RELATIVE HUMIDITY**
- **CONTROL COULD BE OBTAINED BY,**
  - \* **ADDITION OF WATER AND/OR STEAM**
  - \* **REGULATION OF AIR MOVEMENT AND VENTILATION**
  - \* **TEMPERATURE DIFFERENCE BETWEEN REFRIGERATION COILS AND AIR SHOULD BE 1° C OR LESS**
  - \* **MOISTURE BARRIERS - INSULATION OF FACILITIES AND PLASTIC FILMS OF PACKAGES**
  - \* **CRUSHED ICE IN SHIPPING CONTAINERS OR RETAIL DISPLAYS**
  - \* **SPRINKLING WITH WATER**

**3) SUPPLEMENTAL PROCEDURES**

- **PROPER TEMPERATURE AND RELATIVE HUMIDITY MANAGEMENT MUST BE IN PLACE BEFORE ANY SUPPLEMENTAL PROCEDURE IS USED**
  - \* **CURING**
  - \* **CLEANING REMOVAL OF EXCESS SURFACE MOISTURE**
  - \* **SORTING TO ELIMINATE DEFECTS**
  - \* **WAXING AND OTHER SURFACE COATINGS**
  - \* **FILM WRAPPING**
  - \* **HEAT TREATMENTS**
  - \* **POST-HARVEST FUNGICIDES**
  - \* **SPROUT INHIBITORS**
  - \* **ETHYLENE ABSORBERS**
  - \* **INSECT CONTROLS**
  - \* **ETHYLENE TREATMENT FOR DEGREENING AND RIPENING**

**4) CONTROL OF PRODUCT ENVIRONMENT**

- **PACKAGING**
- **CONTROL OF AIR MOVEMENT AND CIRCULATION**
- **CONTROL OF AIR EXCHANGE OR VENTILATION**
- **EXCLUSION AND/OR REMOVAL OF ETHYLENE**
- **CONTROLLED OR MODIFIED ATMOSPHERES**
- **SANITATION**



## **PACKAGING FRESH PRODUCE**

- 1) PRE-COOLING**
- 2) CLEANING AND TRIMMING (IF NECESSARY)**
- 3) SORTING FOR DEFECTIVE OR DAMAGED PRODUCT**
- 4) GRADING FOR COMMERCIAL SIZES**
- 5) PACKAGING PROPER**
- 6) WEIGHING**
- 7) UNITIZATION/PALLETIZATION**
- 8) COOLING**
- 9) REFRIGERATED STORAGE**

## TRENDS FOR THE FUTURE

- 1) COOLING METHODS – FASTER AND MORE ENERGY EFFICIENT
- 2) BETTER MICROPROCESSOR TECHNOLOGY FOR TEMPERATURE MONITORING AND CONTROL IN PACKAGES, TRANSIT VEHICLES AND STORAGE ROOMS
- 3) FASTER TRANSPORTATION AND MORE EFFICIENT DISTRIBUTION SYSTEMS
- 4) INCREASED DIRECT MARKETING
- 5) INCREASED MECHANIZATION IN HARVESTING, BULK HANDLING, UNITIZATION AND TRANSPORT
- 6) INCREASED SHIPPING OF CONTAINER TYPES AND REDUCTION TO A FEW SIZES EACH ADEQUATE FOR NUMEROUS PRODUCTS
- 7) INCREASED USE OF SLIP SHEETS IN PALLETIZATION
- 8) RETURNABLE PLASTIC CONTAINERS
- 9) EXPANSION OF MODIFIED ATMOSPHERE TO CONSUMER PACKAGES, PALLETS, VEHICLES AND STORAGE ROOMS AND FACILITATION OF SHIPMENTS OF MIXED LOADS
- 10) PARTIALLY PREPARED FRESH FRUITS AND VEGETABLES I.E. CUT LETTUCE, CARROTS AND CABBAGE FOR INSTITUTIONAL AND CONSUMER USE
- 11) HANDLING PROCEDURES TO ECONOMIZE ON LABOR, MATERIALS, AND ENERGY USE, AND TO PROTECT THE ENVIRONMENT

Activity in the textile and apparel industry is apparent in most developing nations. A developing country's ability to achieve long-term success in this area depends on more than its ability to provide cheap, abundant labor.

Long-term success can only be achieved if its export strategies are market-driven and can satisfy the demands of stable Western economies. Real commitments to establish export markets must be made at the government and manufacturing levels. The government must create an export enabling environment in order for its manufacturers to succeed. The manufacturers must be able and willing to orient their production to meet the needs of market-driven economies.

Labor costs are only one factor in determining the ultimate success of an LDC's success in textile and apparel exporting. Consistent production, quality control, product adaptability, factory flexibility and targeting the right products for the right markets are all factors in the export effort.

ADVANTAGES OF PRODUCING TEXTILES/APPAREL IN LDC'S

**LOWER PRICES AND POSSIBILITY OF HIGHER MARK-UPS**

**AVAILABILITY OF HAND LABOR**

Hand loomed fabrics  
Handicrafts  
Hand knitted sweaters  
Beading  
Embroidery

**PRODUCT VOIDS IN WESTERN CONSUMER MARKETS**

Mongolian cashmere  
Nepalese pashmina  
Chinese silk  
Fully fashioned knitwear

**WILLINGNESS TO COOPERATE WITH WESTERN CLIENT'S NEEDS**

Able to do short runs  
Supply short life cycle items for niche markets

**EXCLUSIVE RIGHTS**

Core of private label programs  
Factories can be adapted to specification buying  
Provides retailer with exclusive styles at competitive price

**ATTRACTIVE PRICES TO END CONSUMER**

**PROBLEMS FACING TEXTILE/APPAREL CONTRACTORS IN LDC'S**

1. Precariousness of serving one or two primary customers
2. Lack of pro-active ways to develop new clients
3. Inability of adding " front-end" services that will unlock the door to new customers
4. Absence of qualified middle management
5. Individual firms tend to be small, entrepreneurial, unsophisticated with Western business needs
6. Financial capabilities are limited

**PROBLEMS FACED BY WESTERN CLIENTS OF LDC MANUFACTURERS**

1. Poor or unpredictable quality
2. Longer lead times required
3. Slow, unpredictable deliveries
4. Uncertain trade regulations
5. Added buying and shipping expenses
6. Change is implemented at too slow a rate for market needs

### THE MARKETING MIX

**The controllable variables:**    **Product**  
  **Place**  
  **Price**  
  **Promotion**

**The uncontrollable factors:**    **Economic**  
  **Demographic**  
  **Geographic**  
  **Political**  
  **Competition**  
  **Legal**  
  **Infrastructure**  
  **Technological**  
  **Social/Cultural**

**MARKET RESEARCH** is based on these factors, all of which must be carefully considered before entering any new market. Gathering and analyzing the data will assist in estimating sales potential, selecting appropriate channels of distribution, identifying customers and their needs, and evaluating the product's success.

**SALES FORECASTING** is instrumental in evaluating market potential, sales potential and sales projections.

## INTERNATIONAL MARKETING PHILOSOPHIES

**We sell what we make.**

**We make what we sell.**

**We adapt what we make to the needs of foreign consumers.**

## GENERAL U.S. MARKET CHARACTERISTICS AND THEIR IMPLICATIONS FOR THE EXPORTER

**Enormity of the market**

**Regional differences within the market**

**Age groups**

**Income levels**

**Ethnic preferences**

**Successful marketers today are niche marketers.**

## PRODUCT PLANNING

1.       **Segmented product analysis**
2.       **Forecasting and planning**
3.       **Market shopping**
4.       **Time tabling**
5.       **Fabric Procurement**
6.       **Product designing**
7.       **Costing and pricing**
8.       **Specification writing**
9.       **Sample making**
10.      **Packaging**
11.      **Preparation of promotional materials**

### CHANNELS OF DISTRIBUTION

1. Place the product at a location convenient to the potential customer
2. Time the product's availability to satisfy the customer's need
3. Provide information about the product and its usage
4. Provide the pre- and post-sale service needed to maintain the product

### PRIMARY CHANNELS OF DISTRIBUTION IN THE TEXTILE/APPAREL INDUSTRY

Agent or broker

Wholesaler or importer

Manufacturer's agent or independent agent

Wholly-owned subsidiary or branch office

Licensor or franchisee

**THE COMPETITIVE ENVIRONMENT**  
**(IN U.S. & WESTERN COUNTRIES)**

**Boutiques**

**Specialty Stores**

**Department Stores**

**Direct Marketing**

**direct mail**

**telemarketing**

**home shopping networks**

**Mass Merchants**

**Discount Stores**

**Hypermarkets**

**Warehouse Clubs**

## UNDERSTANDING CONSUMER BEHAVIOR

Who is the buyer?

What is needed?

When is it needed?

Where is it bought?

Why is it bought?

What did they buy today?

What did they want, but couldn't find?

## TRADE PROMOTION VEHICLES

**In-country and internationally:**

**Establishing trade promotion offices and chambers of commerce**

**Participating in trade shows and trade missions**

**Using existing data bases and electronic bulletin boards for buying, selling and locating products and inputs**

**Building a network of international buyers and resources**

**Preparation of promotional literature**

## EXHIBITING AT TRADE SHOWS: THE PROCESS

- 1. Making the decision to exhibit**
- 2. Deciding where to exhibit**
- 3. Preparing the trade show budget**
- 4. Planning the exhibit**
- 5. Doing pre-show preparation**
- 6. Managing during the show**
- 7. Following up after the show**

## FACTORING

Factoring is a financial service that was originally developed for the textile industry, although it is now an accepted service used by many other industries.

Factoring is a means of reducing costs and assuring a steady cash flow. Factoring arrangements evaluate all credit risks and purchase Accounts Receivable outright. Upon assignment of the approved invoices, clients draw funds as required.

The factor assumes the credit risk as well as the collection and the attendant Accounts Receivable bookkeeping. There is a factoring service commission on sales (averages one and one-quarter percent), and interest (averages two and one-half above prime) is charged on funds in use.

The average minimum requirements for a factor to consider working with a client:

\$ 250,000 cash employed against receivables, or,  
\$1,000,000 annually (volume)

Other forms of collateral may also be considered if the dollar amount cannot be met by the client.

Factoring enables clients to concentrate on the immediate essentials: production, merchandising and selling. By converting receivables into cash, sales volumes can be increased. Clients can strengthen their position with suppliers, take advantage of trade discounts and have funds available when special market opportunities arise. Supplemental funds may be obtained on an unsecured basis or secured by plant, equipment and/or inventory.

**GROWTH CATEGORIES FOR APPAREL MANUFACTURERS/CONTRACTORS IN LDC'S**

1. Washed silk
2. Fine silk sportswear
3. Embroidered apparel
  - a. sweaters
  - b. dresses
  - c. sleepwear
4. Hand knit sweaters
5. Sport Shirts
6. Woven linen
7. Outerwear

## THE MOST COMMON WAYS OF CONTRACTING APPAREL IN LDC'S

The sophistication of the country's apparel industry and the availability of fabric and trim in the LDC will help determine which method(s) will be most adaptable.

### Production Package

The contractor supplies everything but the design, including the fabrics, all of the production processes, finishing, labeling, packaging and shipping.

### Cut, Make, Sew (CMS)

The apparel company that supplies the design buys the fabric from one country, and then has it shipped to a contractor in another country to be cut and sewn according to specifications.

### Offshore Assembly

Fabric is made and cut in the United States ( Japan, EEC,..) and then sent abroad for sewing as specified. It is then sent back to the originating company for finishing, labeling and shipping.

## QUALITY CONTROL

Quality Control is the central concern to Western textile and apparel firms purchasing goods from manufacturers in developing nations.

Strategies used to monitor quality control include:

- \*conducting on-line testing
- \*doing preproduction testing
- \*issuing detailed purchase documents and technical manuals for items being produced, including:
  - specifications
  - packaging requirements
  - sewing techniques
  - label positioning
- \*making plant visits
- \*establishing an on-site laboratory, and testing for:
  - shrinkage
  - color-fastness
  - light-fastness
  - crocking

Developing Countries cited for their efforts in improving quality control: China  
Thailand  
Bangladesh

Developing Countries in need of greatly increasing their quality control: Egypt  
Tunisia

**REMEMBER! MANUFACTURERS GET ONLY ONE SHOT AT SELLING TO WESTERN MARKETS. IF THE NECESSARY QUALITY CONTROL STANDARDS ARE NOT ESTABLISHED, THE EXPORTING COMPANY WILL NOT GET A SECOND CHANCE!**

## CUSTOMS AND IMPORT REGULATIONS AFFECTING TEXTILES AND APPAREL

### GENERAL AGREEMENT ON TARIFFS AND TRADE (GATT)

a multilateral agreement designed to liberalize and govern world trade

### MULTI-FIBER TEXTILE ARRANGEMENT (MFA)

created to cope with the problem of increased penetration into the apparel/textile industry. It provides an umbrella under which nations may negotiate and implement bilateral trade agreements. The MFA governs imports of cotton, wool, man-made fibers, silk, linen and ramie

### QUOTAS

quantitative restrictions placed on exporting countries on the number of units of specific items that may be shipped to a particular importing country over a specific period of time. A foreign producer cannot ship into the United States without a quota unless a bilateral treaty has been negotiated

### BILATERAL TREATIES

- \*establish country-by-country quotas, or annual maximums, on hundreds of categories in textiles and apparel
- \*establish the quota level on a category-by-category level
- \*specify the growth factors to be applied to each quota year
- \*provide for establishing new quotas in cases where the bilateral agreement does not provide for a particular import category

### COUNTRY OF ORIGIN RULES

determine which country was truly the country of origin for incoming merchandise, and thus which country's quota was involved. The first manufacturing steps determine a garment's origin.

### DUTY/TARIFF

a tax on imports imposed on most fashion goods. It is generally ad valorem, or a percentage of the first or invoice cost

### EXEMPTIONS FROM TARIFFS OR QUOTAS

preferential programs designed to stimulate the trade and economy of developing countries. Examples of such programs include:

- \*General System of Preferences (GSP)
- \*807/Value-Added Tax
- \*Caribbean Basin Initiative (CBI)

**FREIGHT FORWARDERS**

**Handle:**

- a. full container loads (FCL)
- b. less than container loads (LCL)
- c. breakbulk

**Operate:**

as a non vessel operating common carrier (NVOCC)

**Provide:**

- a. intermodal routing
- b. ground support
- c. consolidation services
- d. warehousing and on-forwarding

**Services include:**

- a. customs brokerage
- b. export documentation and banking assistance
  - 1. certificates of origin
  - 2. consular invoices
  - 3. export customs declarations
  - 4. waybills
  - 5. letters of credit

**SPECIAL DOCUMENTATION REQUIRED FOR IMPORT IN TO**  
**THE U.S. OF TEXTILE AND APPAREL PRODUCTS**

- A. Commercial invoice with price and description including:**
- composition (percentage by weight)
  - detailed description of each product
  - indication if garment is knit or woven
- B. Packing list:**
- indicating items in box
  - assigning a number to each box
- C. Textile declaration:**
- indicating where materials and components originate
- D. Certificate of Origin:**
- designating country of manufacture if a garment is made in more than one country
- E. Labels must:**
- be in English
  - be visible and permanently affixed
  - indicate country of origin
  - display textile composition (percentage by weight)
- F. Additional factors to consider:**
- quotas
  - duty
  - hazardous material
  - visas

Presentation

**Disciplines in  
Attracting U.S. Buyers  
and Investors**

U.S.A.I.D.

# Two types of U.S. buyers

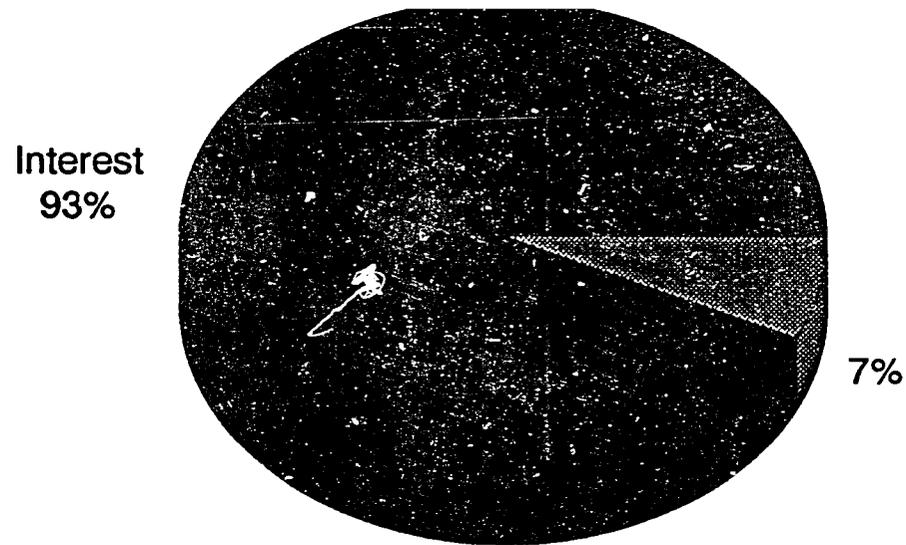
- U.S. companies buying goods
- U.S. companies that will buy into the country  
.....INVESTMENT

Source: THE MARTEC GROUP

# AID Objective

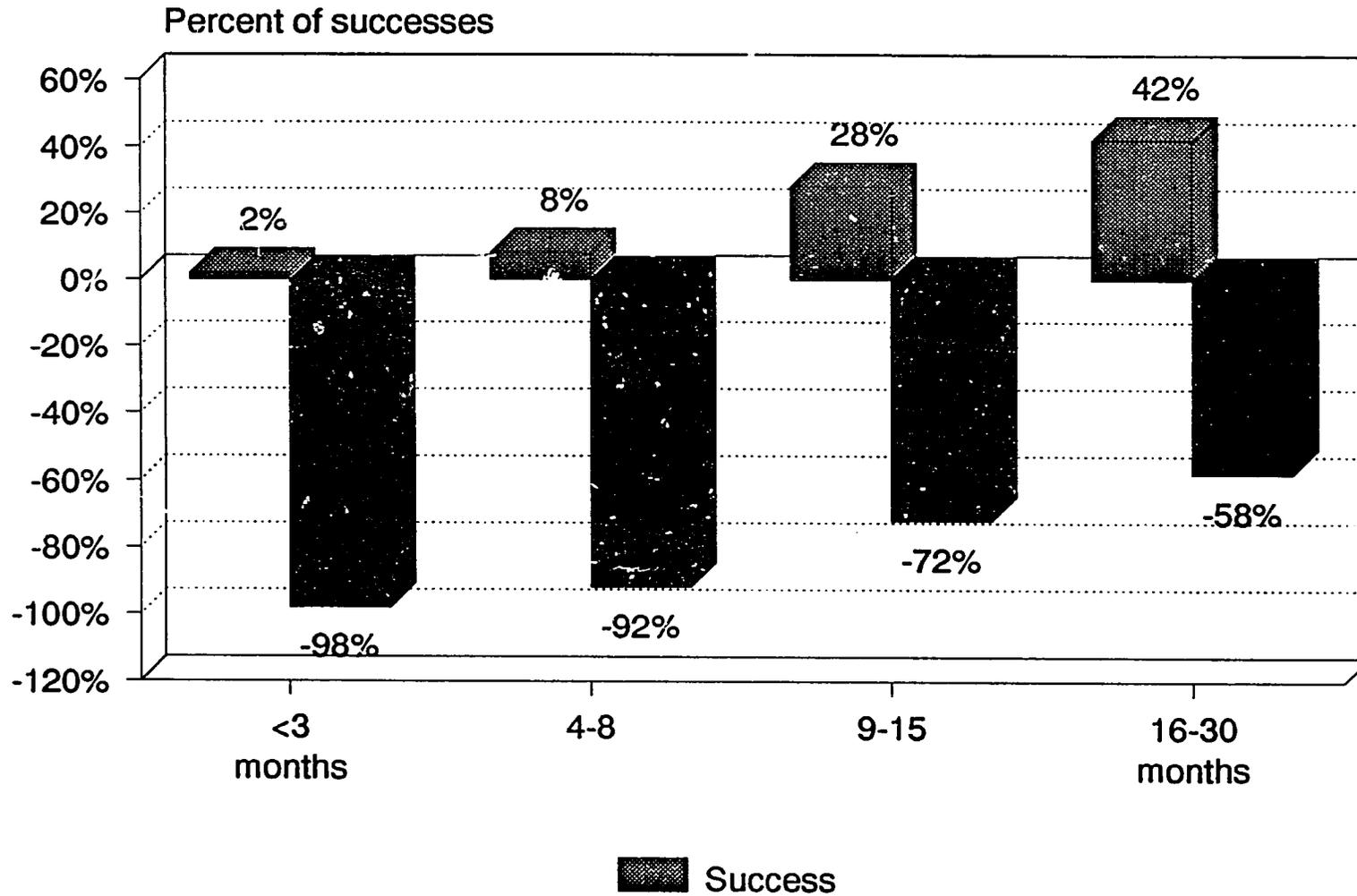
- Assist countries in economic development
- Assist countries in understanding economic realities
- Assist countries in developing economic strategies

# Foreign firm interest in American markets



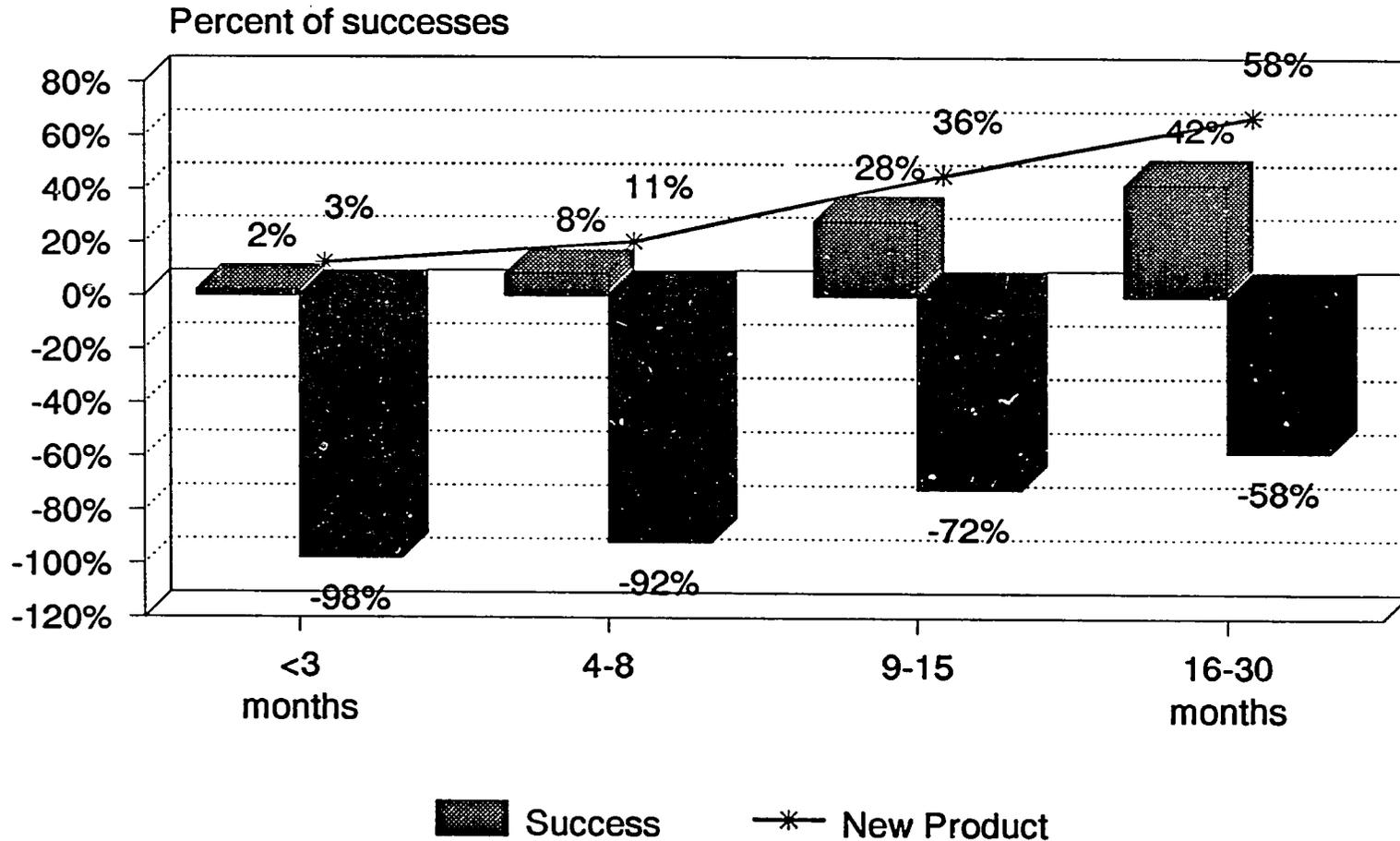
Source: THE MARTEC GROUP

# Time/Effort vs Successes



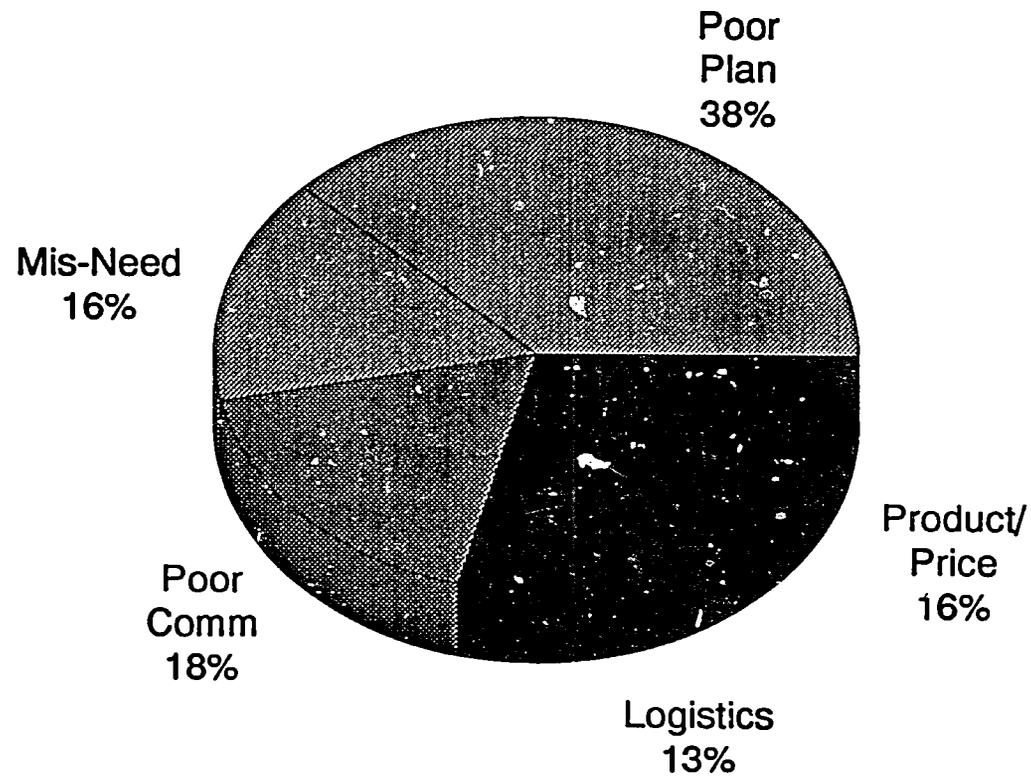
Source: THE MARTEC GROUP

# Time/Effort vs Successes New product performance



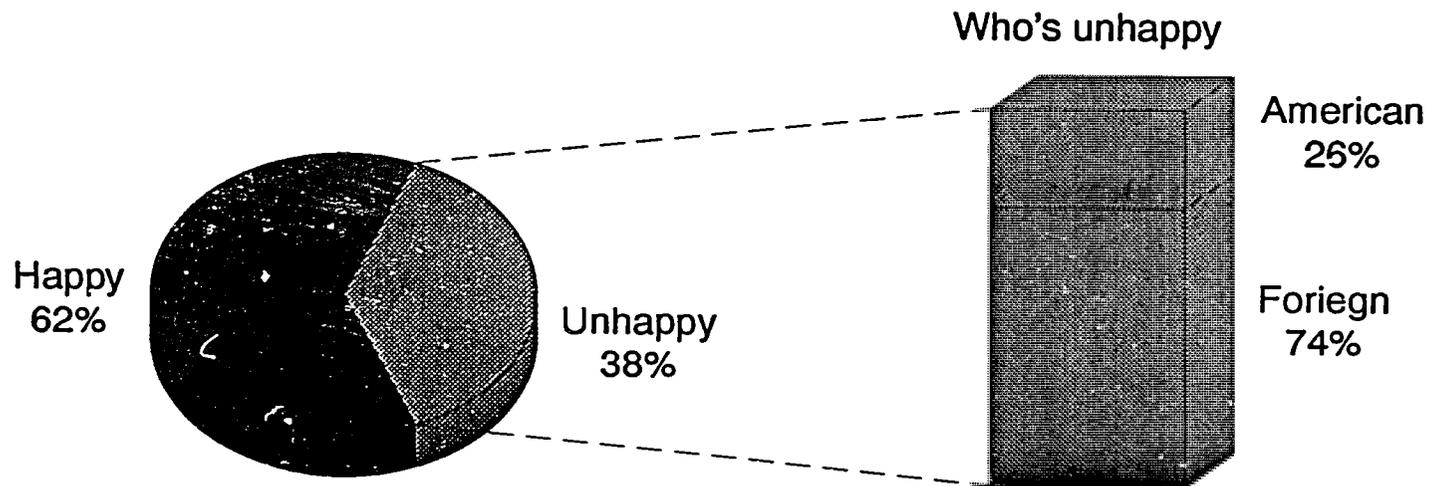
Source: THE MARTEC GROUP

# Why American companies believe foreign firms fail



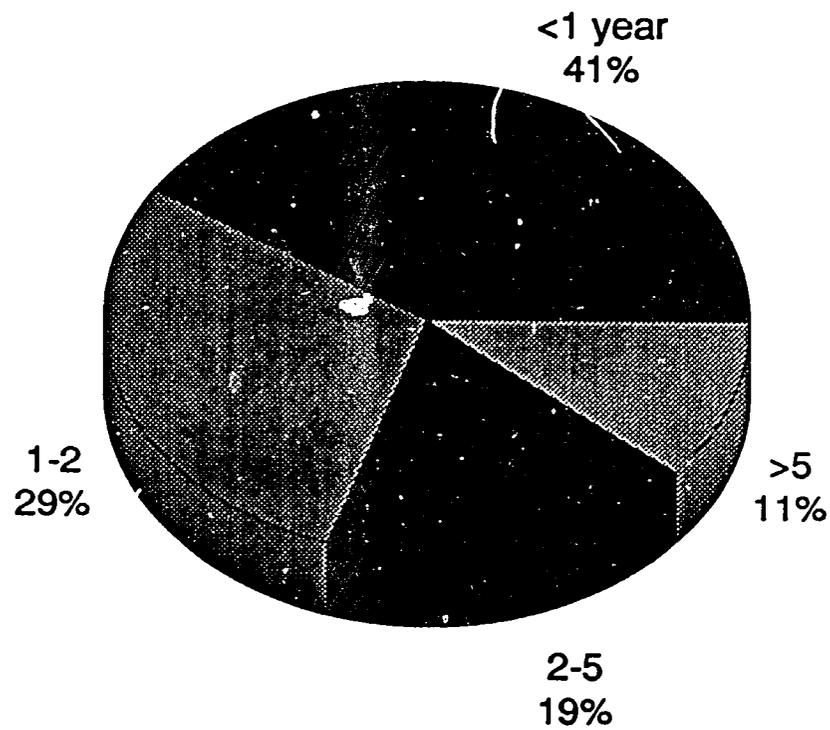
Source: THE MARTEC GROUP

# How good are the relationships



Source: THE MARTEC GROUP

# Length of relationship



Source: THE MARTEC GROUP

# Stages for international attraction

- Internal audit
- Organization and target preparation
- Implementation
- Review



# Internal Audit

- What does my country have to offer?
- What does America need
- Where do Americans place value

## Internal Audit

### What does my country have to offer?

- Consumer Appeal
- Accessibility to markets
- Partnerships
- Resources (natural&labor)
- Financial incentives

# Organization and Target Preparation

- Select identifiable groups
- Define regional and group strategies.....  
..step by step approach
- Determine hit ratio
- Establish measurable goals and make budget projections

## Implementation and Review

- These steps should involve all budgetmakers so the entire organization is aware of this difficult task
- Review periods should be planned on a quaterly basis
- All goals should be stated in the most conservative manner

## Common mistakes in establishing an American position

- Buying contacts
- National commitment to a regional organization
- Volume assumptions
- thinking "pricing will correct itself over time"

## **BUSINESS CLIMATE CONDUCTIVE TO EXPORT**

- A. EXCHANGE RATES THAT ARE IN PARITY OR ABOVE THE REAL VALUE OF THE LOCAL CURRENCY**
- B. TAX HOLIDAYS AND/OR REBATES TO INVESTORS AND EXPORTERS THAT COULD BE TRADED IN THE OPEN MARKET**
- C. LOW IMPORT TARIFFS AND SIMPLE IMPORT/EXPORT PROCEDURES (TEMPORARY ENTRY)**
- D. HYPERINFLATION AND LOW FOREIGN CURRENCY RESERVES**
- E. OPEN SEA AND AIR POLICIES TO FACILITATE SHIPPING OF EXPORT GOODS FROM PORTS NEAR PRODUCTION AND PROCESSING SITES**
- F. TRANSPORT SUBSIDIES TO BREAK THE VICIOUS CIRCLE OF LACK OF CARGO SPACE AND FREQUENCIES DUE TO LOW EXPORT VOLUMES**
- G. FOREIGN INVESTMENT LAWS AND INCENTIVES THAT PROMOTE PARTICIPATION OF FOREIGN INVESTORS AND PROVIDERS OF SERVICES SUCH AS REPATRIATION OF EARNINGS AND THE RIGHT TO OWN LAND**
- H. PROTECTION FROM CONFISCATION AND ARBITRARY SEIZURE OF PROPERTY**
- I. DOUBLE TAXATION RELIEF**
- J. WAGE REDUCTION INCENTIVES DURING START UP AND TRAINING OF EMPLOYEES**
- K. JOB TRAINING SUPPORT**
- L. INDUSTRIAL STATES PROGRAMS AND/OR FREE ZONES**
- M. CREDIT LINES WITH REASONABLE INTEREST RATES AND TERMS**
- N. COMMERCIAL ATTACHES IN FOREIGN EMBASSIES THAT OPERATE WITHOUT RESTRICTIONS, ACT AS PROMOTERS AND PROVIDE MARKET INFORMATION AND LIMITED LOGISTICAL SUPPORT TO PRIVATE SECTOR EXPORTERS**

**POLICY AND INSTITUTIONAL ISSUES (CONTINUED)**

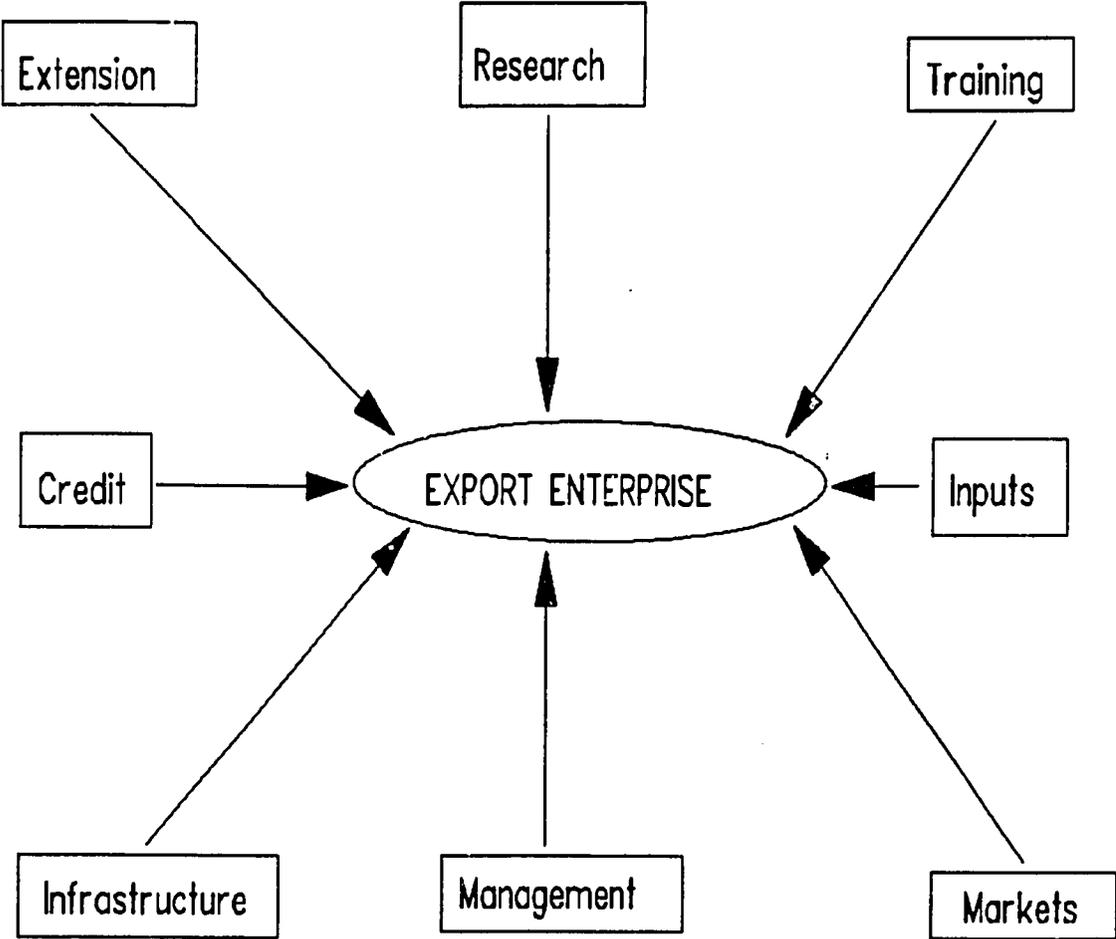
- L. LACK OF POSTHARVEST AND STORAGE INFRASTRUCTURE STRATEGICALLY LOCATED NEAR PRODUCTION AND/OR SHIPPING SITES (SEAS, PORTS AND AIRPORTS)**
- M. SUPPORT GOVERNMENT AGENCIES THAT ARE BADLY MANAGED, HAVE VERY LIMITED RESOURCES AND LACK FLEXIBILITY TO MAKE DECISIONS**
- N. MARITIME TRANSPORTATION SERVICES OWNED BY THE GOVERNMENT AND ORIENTED TOWARDS THE MOVEMENT OF TRADITIONAL NON-PERISHABLE PRODUCTS WITH VERY LOW SERVICE FREQUENCIES AND LIMITED SCHEDULES**
- O. AIR TRANSPORTATION SERVICES ALSO OWNED BY THE GOVERNMENT AND WITH VERY LIMITED CARGO SPACE, RESTRICTED DESTINATION OPTIONS, HIGH SHIPPING COST AND NO INFRASTRUCTURE TO HANDLE AGRICULTURAL FREIGHT**
- P. RESEARCH AND EXTENSION SERVICES THAT ARE MOSTLY PRODUCTION ORIENTED AND DO NOT HAVE THE EXPERIENCE AND/OR KNOWLEDGE TO PROVIDE REQUIRED PRE AND POST HARVEST TECHNOLOGY TO GROWERS, PACKERS AND SHIPPERS**
- Q. LAWS THAT RESTRICT FOREIGN INVESTMENT AND PARTICIPATION IN EXPORT VENTURES SPECIALLY THE COMPOSITION OF JOINT VENTURES AND REPATRIATION OF PROFITS**
- R. POLITICAL AND SOCIAL UNREST TOGETHER WITH TERRORISM**
- S. PRIVATE SECTOR LACKS ENTREPRENEURIAL SPIRIT; DISLIKES RISK TAKING AND HAS LIMITED ACCESS TO CAPITAL RESOURCES, TECHNOLOGY AND MANAGEMENT**

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**POLICY AND INSTITUTIONAL ISSUES AFFECTING THE EXPORT  
BUSINESS IN DEVELOPING COUNTRIES**

- A. COMPLICATED AND BUREAUCRATIC IMPORT/EXPORT PROCEDURES THAT FACILITATE CORRUPTION**
- B. PARALLEL EXCHANGE RATES THAT ARE NOT IN PARITY WITH THE REAL VALUE OF THE DOLLAR**
- C. HIGH IMPORT TARIFFS AND CUMBERSOME REGULATIONS FOR THE IMPORT OF EQUIPMENT, MATERIALS AND AGRICULTURAL INPUTS**
- D. COMPLICATED AND LENGTHY CENTRAL BANK PROCEDURES TO CONDUCT EXPORT TRANSACTIONS TOGETHER WITH A LACK OF LIQUIDITY**
- E. HYPERINFLATION AND LOW FOREIGN CURRENCY RESERVES THAT DIFFICULT THE IMPORTATION OF GOODS NEEDED TO SUPPORT EXPORT INDUSTRY**
- F. ANTIQUATED POLICIES THAT DEAL MOSTLY WITH TRADITIONAL NON-PERISHABLE EXPORTS**
- G. EXPORT TAXES**
- H. CENTRALIZATION OF GOVERNMENT SERVICES FOR EXPORTERS**
- L. HIGH INTEREST RATES THAT PUT EXPORTERS IN A NOT FAVORABLE COMPETITIVE SITUATION DUE TO COST OF MONEY**
- J. LACK OF CREDIT LINES FOR EXPORTERS**
- K. AGRARIAN REFORM LAWS THAT RESTRICT THE USE OF LAND FOR CORPORATIONS AND BLOCKS OWNERS FROM USING LAND AS A COLLATERAL TO SECURE LOANS**

# SUPPORT SYSTEMS



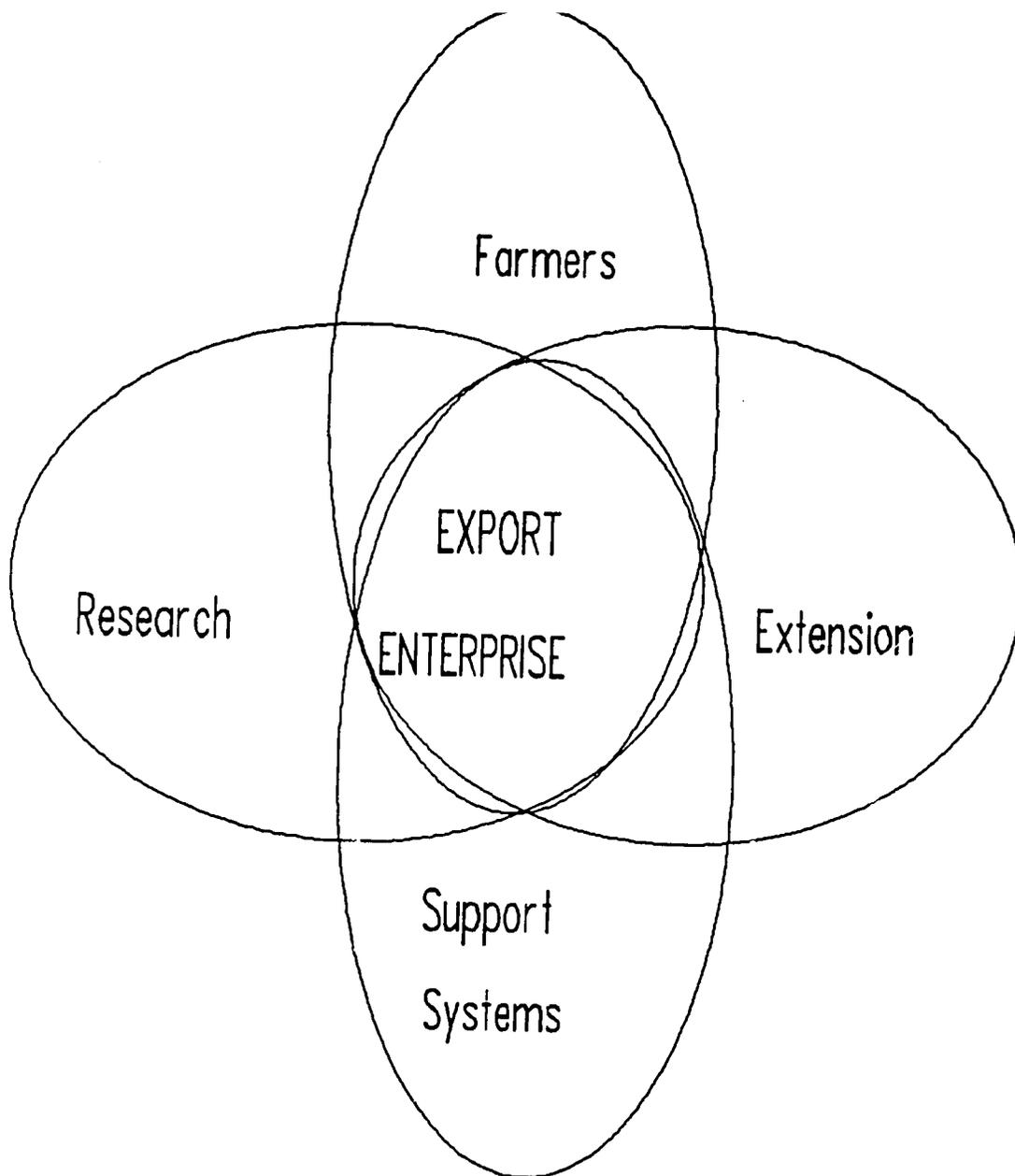
## CRITICAL SUPPORT SERVICES

<b>Technology</b>	<b>Production</b>
	<b>Post-harvest</b>
<b>Timely Inputs</b>	<b>Fertilizers, pesticides</b>
<b>Seeds and Planting Materials</b>	<b>Most favored varieties</b>
<b>Timely Credit</b>	<b>Before planting time</b>
<b>Government Policies and Incentives</b>	<b>Tax holidays, competitive foreign exchange rates, etc</b>
<b>Supporting Industry</b>	<b>Packaging</b>
	<b>Refrigeration</b>
	<b>Equipment and Machinery</b>
	<b>Input Manufacturing</b>
<b>Infrastructure</b>	<b>Roads</b>
	<b>Transport</b>
	<b>Cooling Facilities at Major Exit Points</b>
	<b>Storage Facilities</b>
	<b>Low Cost and Efficient Water, Electricity, Fuel and Communications</b>
<b>Skilled Technicians</b>	<b>Plumbers</b>
	<b>Carpenters</b>
	<b>Electricians</b>
	<b>Welders</b>
	<b>Refrigeration Technicians</b>

# RESEARCH

<b>BASIC</b>	<b>APPLIED</b>
<b>New Innovations</b>	<b>Solves problems and realizes opportunities</b>
<b>Long Term</b>	<b>Short Term</b>
<b>Scientists Only Participants</b>	<b>Farmers, Extension Workers and Scientists All Participate</b>
<b>Work Primarily in Laboratories and Research Stations</b>	<b>Work in Research Stations and Farmers Fields</b>
<b>Demands Large Sums of Money</b>	<b>Not Capital Intensive</b>

# PARTICIPATIVE APPROACH FOR SUSTAINABILITY



# USAID LOGICAL FRAMEWORK

<b>Matrix</b>	<b>Objective (Goal)</b>	<b>Purpose</b>	<b>Outputs</b>	<b>Inputs</b>
<b>Narrative Summary</b>	<b>Improve the socio-economic status of small farmers</b>	<b>Establish sustainable rural enterprises</b>	<b>Farmer organizations formed and consolidated</b>	<b>Technical assistance and training</b>
<b>Verifiable Indicators</b>	<b>Increase per capita income by 50%</b>	<b>At least 12 enterprises operating profitably</b>	<b>24 farmer associations organized</b>	<b>100 pm of TA in agribusiness, organization and training</b>
<b>Means of Verification</b>	<b>Base line and final survey</b>	<b>Balance sheets and P/L statements</b>	<b>Registration certificates from SEC</b>	<b>Quarterly reports from contractor</b>
<b>Important Assumptions</b>	<b>Social unrest under control</b>	<b>Minimum losses from natural disasters and calamities</b>	<b>Government incentives in place to promote farmer organizations</b>	<b>Foreign consultants welcome</b>

## USAID LOGICAL FRAMEWORK APPLIED TO PRIVATE SECTOR ENGAGED IN EXPORTS

<b>Matrix</b>	<b>Objective (Goal)</b>	<b>Purpose</b>	<b>Outputs</b>	<b>Inputs</b>
<b>Narrative Summary</b>	<b>Increase profit margin</b>	<b>Diversify product base and sales</b>	<b>Export businesses generating profits</b>	<b>Additional capital investment</b>
<b>Verifiable Indicators</b>	<b>30% return on operating capital</b>	<b>\$100M in annual sales from NTAE's</b>	<b>5 regional companies (new or purchased)</b>	<b>\$10M-\$15M in new capital investments (10% of sales)</b>
<b>Means of Verification</b>	<b>P/L reports</b>	<b>Sales reports</b>	<b>Share certificates</b>	<b>New packing and storing facilities</b>
<b>Important Assumptions</b>	<b>Low interest rates on working capital</b>	<b>Secured production base</b>	<b>No import restrictions in targeted markets</b>	<b>In-flow of capital resources from foreign donors</b>

## **THE BANANA INDUSTRY IN THE EASTERN CARIBBEAN**

- A. THE BANANA EXPORT BUSINESS IS THE MOST IMPORTANT BUSINESS IN THE EC. THE WELL-BEING OF MOST OF THE PEOPLE IN THIS REGION DEPENDS ON THIS BUSINESS**
- B. THE WORLD MARKET FOR BANANAS IS VERY STRONG AND THE OUTLOOK FOR THE FUTURE IS VERY GOOD**
- C. IN JANUARY 1, 1993 THE EUROPEAN ECONOMIC COMMUNITY WILL HAVE AN OPEN MARKET WITH UNIFORM TRADE POLICIES AND FREE MOVEMENT OF GOODS AMONG ITS MEMBERS**
- D. THE BANANA INDUSTRY IN THE EC HAS BEEN SUBSIDIZED AND PROTECTED BY THE UNITED KINGDOM WHERE BANANA PRICES HAVE BEEN VERY HIGH AND STABLE**
- E. HIGH PRICES HAVE CAUSED A TREMENDOUS INCREASE IN VOLUME IN THE LAST 10 YEARS MOSTLY FROM SMALL PRODUCERS FARMING MARGINAL LANDS AT A HIGH ENVIRONMENTAL COST**
- F. HOWEVER, UNIT COST IS HIGH AND PRODUCTIVITY IS VERY LOW COMPARED TO CENTRAL AMERICA. INDUSTRY EFFICIENCY IS ALSO VERY LOW. THEREFORE, COMPETITIVE POSITION IS NOT GOOD**
- G. THE EFFECTS OF THE REMOVAL OF PROTECTION UNDER A UNIFIED EUROPEAN MARKET HAVE BEEN EVALUATED AS FOLLOWS:**
  - 1. 15,000 SMALL FARMERS WILL BE DISPLACED FROM BANANA PRODUCTION**
  - 2. 25,000 ACRES WILL BE AVAILABLE FOR OTHER USES**
  - 3. VOLUME OUTPUT WILL DECREASE BY 51,000 TONS**
  - 4. FOREIGN EXCHANGE LOSSES WILL AMOUNT TO US\$24M (EC\$61M)**

**WHAT SHOULD USAID DO?**

## USAID INTERVENTION IN BANANA SITUATION OF EASTERN CARIBBEAN

Logical Framework	Option A	Option B
Objective	Make banana industry competitive in the European market after 1992	Diversify economies of EC countries away from bananas as soon as possible
Purpose	Raise efficiency and productivity of banana production	Increase agricultural production options for small farmers
Output	Increased foreign exchange earnings	Farmers producing a variety of other crops