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U N C L A S S I F I E D

AGENCY FOR INTERNATIONAL DEVELOPMENT

Washington, D.C. 20523

PROJECT PAPER

INDIA: Agricultural Commercialization  
and Enterprise 386-0521

Dated: August 27, 1991

U N C L A S S I F I E D

# AGRICULTURAL COMMERCIALIZATION AND ENTERPRISE PROJECT

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## ABBREVIATIONS

ACE	Agricultural Commercialization and Enterprise
AID	Agency for International Development
APEDA	Agricultural & Processed Food Products Export Development Authority
APRE	Bureau for Asia and Private Enterprise
Bank L/Comm	Bank Letter of Commitment
BIFR	Board for Industrial and Financial Reconstruction
CDSS	Country Development Strategy Statement
CTD	Centre for Technology Development
DEA	Department of Economic Affairs
DFIs	Development Finance Institutions
Direct L/Comm	Direct Letter of Commitment
DMD	Deputy Managing Director
FAPCCI	Federation of Andhra Pradesh Chambers of Commerce and Industry
GNP	Gross National Product
GOI	Government of India
ICICI	Industrial Credit & Investment Corporation of India
IIE	Indian Institute of Economics
MCCI	Mahratta Chamber of Commerce and Industry
HITCON	Maharashtra Industrial and Consultancy Organization, Ltd.
NGO	Non-Governmental Organization
PACD	Project Assistance Completion Date
PACER	Program for Acceleration of Commercial Energy Research
PACT	Program for Advancement of Commercial Technology
PPIS	Program Performance Information System
RBI	Reserve Bank of India
SPREAD	Sponsored Program for Research and Development
TA	Technical Assistance
TDE	Office of Technology Development and Enterprise
USAID	United States Agency for International Development/India

APPENDIX 3A, Attachment 1  
Chapter 3, Handbook 3 (TM 3:43)

AGENCY FOR INTERNATIONAL DEVELOPMENT  
**PROJECT DATA SHEET**

1. TRANSACTION CODE: **A** (A = Add, C = Change, D = Delete) Amendment Number: \_\_\_\_\_ DOCUMENT CODE: **3**

COUNTRY/ENTITY: **INDIA**

2. PROJECT NUMBER: **386-0521**

3. BUREAU/OFFICE: **APRE/A** (29) 4. PROJECT TITLE (maximum 40 characters): **Ag. Commercialization & Enterprise**

5. PROJECT ASSISTANCE COMPLETION DATE (PACD): MM DD YY **09 30 98**

6. ESTIMATED DATE OF OBLIGATION (Under "B" below, enter 1, 2, 3, or 4):  
A. Initial FY **91** B. Quarter **4** C. Final FY **97**

8. COSTS (\$000 OR EQUIVALENT \$1 = )

A. FUNDING SOURCE	FIRST FY 1991			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total	2,980	2,020	5,000	11,919	8,081	20,000
(Grant)	( 2,980 )	( 2,020 )	( 5,000 )	( 11,919 )	( 8,081 )	( 20,000 )
(Loan)	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
Other U.S.:						
1. Host Country	0	2,700	2,700	0	10,900	10,900
2. Other Donor(s)						
<b>TOTALS</b>	<b>2,980</b>	<b>4,720</b>	<b>7,700</b>	<b>11,919</b>	<b>18,981</b>	<b>30,900</b>

9. SCHEDULE OF AID FUNDING (\$000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1) ARDN	*	*	*	0	0	5,000	0	20,000	0
(2)									
(3)									
(4)									
<b>TOTALS</b>				<b>0</b>	<b>0</b>	<b>5,000</b>	<b>0</b>	<b>20,000</b>	<b>0</b>

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each): \*

11. SECONDARY PURPOSE CODE: \*

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each):  
A. Code \*  
B. Amount

13. PROJECT PURPOSE (maximum 480 characters):  
To improve the investment environment for private agribusiness in horticulture.

14. SCHEDULED EVALUATIONS: Interim MM YY **09 94** Final MM YY **06 98**

15. SOURCE/ORIGIN OF GOODS AND SERVICES:  000  741  Local  Other (Specify)

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a \_\_\_\_\_ page PP Amendment):  
\* Per Handbook 18, Appendix D Page DII-TC-1, these codes are not required.

Clearance: CO(A):NNWahi *Wahi*

17. APPROVED BY: *Walter G. Bollinger*  
Signature: *Walter G. Bollinger*  
Title: **Walter G. Bollinger**  
Director

Date Signed: MM DD YY \_\_\_\_\_

18. DATE DOCUMENT RECEIVED IN AID/W. OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION: MM DD YY \_\_\_\_\_

PROJECT AUTHORIZATION

Name of Country: INDIA

Name of Project: AGRICULTURAL  
COMMERCIALIZATION AND ENTERPRISE

Project No.: 386-0521

1. Pursuant to Sections 103 and 106 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Agricultural Commercialization and Enterprise Project (ACE) ("Project") for India (the "Cooperating Country") involving planned obligations of not to exceed Twenty Million United States Dollars (\$20,000,000) subject to the availability of funds in accordance with the annual OYB allotment process, to help in financing the foreign exchange and local currency costs of the Project. The planned life of the Project is seven years from the date of initial obligation.

2. The Project consists of assistance in the form of financial and technical support to improve the investment environment for private agribusiness in the horticultural sector. Such support will be provided primarily through the Industrial Credit & Investment Corporation of India (ICICI) for activities such as loans to private agribusinesses to introduce innovations in existing or new agribusiness; policy and sectoral prefeasibility studies; and relevant technical assistance and training.

3. The Project Grant Agreement, which may be negotiated and executed by the officer(s) to whom such authority is delegated in accordance with A.I.D. regulations and Delegations of Authority, shall be subject to the following essential terms and conditions as A.I.D. may deem appropriate.

A. **Source and Origin of Commodities:** Goods financed by A.I.D. under the Project shall have their source and origin in the United States or, subject to specific prior written A.I.D. approval, in India. Separate transactions in India not exceeding \$5,000 or separate transactions in India not exceeding \$100,000 of goods that were manufactured in the United States do not require specific written approval.

B. **Nationality of Services:** Services financed by A.I.D. under the Project shall be procured from the United States or, provided that the value of individual contracts does not exceed \$250,000, India. All other transactions are subject to the specific prior written approval

of A.I.D. Ocean shipping financed by A.I.D. under the Project shall, except as A.I.D. may otherwise agree in writing, be financed only on flag vessels of the United States.

C. Conditions Precedent: The Project Grant Agreement shall contain the following conditions precedent:

1. Prior to the first disbursement under the Project Grant Agreement, or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made, the Cooperating Country will, except as the Parties may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D.:
  - a. an opinion of counsel acceptable to A.I.D. that the Project Grant Agreement has been duly authorized and/or ratified by and executed on behalf of the Government of India and that it constitutes a valid and legally binding obligation of the Government of India in accordance with all of its terms;
  - b. a statement of the name(s) of the person(s) holding or acting in the office(s) of the Cooperating Country specified in the Project Grant Agreement, and of any additional representatives, together with a specimen signature of each person specified in such statement; and
  - c. a letter from ICICI that it has created an ACE Group for managing the Project, headed by an officer at the level of Manager or higher and staffed by at least two other officers, plus such other personnel considered necessary to implement Project activities.
2. Prior to disbursement under the Grant, or to issuance by A.I.D. of documentation pursuant to which disbursement will be made, to finance loans, ICICI will, except as the Parties may otherwise agree in writing, furnish to A.I.D., for its approval, a description of the lending terms, criteria and procedures for the review and approval of loans to be provided under the Project to private agribusiness firms. Such description would include the guidelines governing ICICI's retention of reflows (i.e., repayments of principal and/or interest) from loans and contributions by recipients of project assistance. Such criteria and procedures shall seek, inter alia, to minimize the adverse potential environmental impact of any resources made available under the Project to private agribusiness firms.

D. Covenants: The Project Grant Agreement shall contain the following covenants:

1. ACE Advisory Council. Within six (6) months of the date of the Project Grant Agreement, ICICI shall create and maintain in operation for the life of the Project, an ACE Advisory Council chaired by ICICI, to provide overall guidance to the Project. The operational procedures for the ACE Advisory Council will be finalized by ICICI in consultation with A.I.D. The membership of the Advisory Council will be comprised of representatives as specified in Annex 1 of the Project Grant Agreement.
2. Training. ICICI shall make all training under the Project available to its personnel without any discrimination on the basis of gender.
3. Post-Training Agreement. The Cooperating Country shall make every effort to require that each person trained under the Project shall work in activities related to the Project or in activities approved for financing under the Project, in India, for not less than three times the length of his or her training.
4. Evaluations. Within eighteen (18) months of the date of the Project Grant Agreement, ICICI and A.I.D. will establish a monitoring and evaluation program which will be financed as part of the Project. Except as the Parties may otherwise agree in writing, this program will include an in-depth mid-term evaluation and a final evaluation at the end of the Project. The monitoring and evaluation program will include:
  - a. an evaluation of progress towards attainment of the objectives of the Project;
  - b. identification and evaluation of problem areas or constraints which may inhibit such attainment;
  - c. assessment of how such information may be used to help overcome such problems or constraints; and
  - d. evaluation, to the degree feasible, of the overall development impact of the Project.
5. Segregated Account for Reflows; Utilization Upon Project Completion/Termination.
  - a. The Grantee agrees that all reflows (i.e., repayments of principal and/or interest) from loans financed under the Project shall be deposited and maintained by

ICICI in a segregated account and not commingled with other assets of ICICI. All funds in said account shall be used for the purposes of the Grant as set forth in the Project Grant Agreement or in Project Implementation Letters issued pursuant to the Project Grant Agreement. It is the understanding of the Parties that the Government of India shall hold the beneficial interest in all reflows and ICICI neither has nor shall obtain any present or future beneficial interest, whatsoever, in either the Grant or the reflows, other than for reimbursement of mutually agreed upon costs incurred by ICICI under the Grant.

- b. After completion of the Project or upon the termination of the Project Grant Agreement by either Party, A.I.D. and the Grantee shall confer and agree in writing to the utilization thereafter of all funds in said account in a manner consistent with the purposes and objectives of the Project. The requirement set forth herein is in addition to and neither replaces nor modifies any other provision of the Project Grant Agreement.
6. Technical Assistance. Prior to the first allocation of Project funds for technical assistance to private sector organizations, ICICI will develop general criteria and procedures for the review and approval of technical assistance in consultation with A.I.D. These criteria and procedures shall also specify the contribution by the private recipients toward the costs of such technical assistance.
7. Reporting of Grantee's Project Contribution. The Grantee agrees to furnish to A.I.D. in writing, annually during the life of the Project, a report of the Grantee's contribution (in cash and in kind) which is provided pursuant to the Project Grant Agreement. The format and content of such report will be specified in a Project Implementation Letter.

Signature: Walter G. Bollinger  
Walter G. Bollinger  
Director

Date: Aug. 27, 1991

Clearances:

JDTarter: PDPS/PDI [Signature]  
JGrayzel: TDE [Signature]  
AYBlumberg: TDE [Signature]  
WCGraham: CO [Signature]

TMMahoney: PDPS [Signature]  
SPMintz: DD [Signature]  
KTurner: RLA [Signature]

## ACE PROJECT EXECUTIVE SUMMARY

Agribusiness development in India has enormous untapped potential. The agricultural sector employs nearly 70 percent of India's workforce, and accounted for nearly a third of GNP in 1989. Despite a food surplus and substantial government efforts to increase total agricultural production, agricultural growth in India has been slow in comparison to growth rates in other Asian countries. Large amounts of produce are spoiled because of poor post-harvest management. India lacks the modern support services and infrastructure essential to growth in agribusiness, especially in the high-value horticultural subsector. To a great degree, the constraints to horticultural growth can be overcome by private sector-led investment in integrated agribusiness services for post-farm products. However, Indian entrepreneurs need incentives to undertake activities perceived as risky; they require improved agribusiness policies and better information about the agribusiness market.

The goal of the Agricultural Commercialization and Enterprise (ACE) Project is to develop a dynamic private agribusiness sector in India. The purpose of ACE is to improve the investment environment for private agribusiness in horticulture. Specific improvements are expected to include: increased private investment in the agribusiness sector; improved linkages between horticultural producers, processors, and marketers; increased flows of fresh and processed horticultural products to targeted export markets; expanded bank lending to agribusiness industries; and strengthened capability of a major business association to provide agribusiness-related services to its members and to lobby for policy and regulatory improvements. The implementing agency for ACE will be the Bombay-based Industrial Credit and Investment Corporation of India (ICICI). The Maharashtra Chamber of Commerce and Industry (MCCI) in Maharashtra will play a key role in promotion, outreach and policy studies.

The primary ACE Project clients will be private firms providing goods or services to the agro-industrial sector. Secondary clients will be MCCI and its member private firms in the sector. Initially, ACE will concentrate on Maharashtra; following the mid-term evaluation, consideration will be given to the addition of Andhra Pradesh or other states. ACE activities will focus on fresh and processed fruits and vegetables, flowers and foliage; perhaps 25 percent of project resources will be targeted to one crop subsector, probably export grapes. Successful development of the grape agroindustrial subsector will serve as a model for the development of others, improve ICICI's ability to view an integrated system across one commodity, and ensure the coordination of the energies of the ACE Group in the initial stages of the Project.

Specifically, ACE will provide resources for:

- o Loans to at least 25 agribusiness entrepreneurs for investment projects in post-farm agribusiness;
- o Technical assistance to over 100 private firms in designing and/or implementing projects relating to post-farm horticulture;
- o Approximately 15 trade and investment tours for either Indian horticultural entrepreneurs to visit U.S. firms or for trips by representatives of the U.S. private sector to India to determine commercial opportunities;
- o ICICI activities including eight sectoral studies, short-term agribusiness training for financial institution officers, and ACE promotion and implementation; and
- o MCCI activities such as policy studies, membership services and ACE promotion.

The ACE Project Agreement will be jointly signed by USAID, the Ministry of Finance/Department of Economic Affairs, and ICICI. Signing is scheduled to take place in August of 1991. The first agreement will provide the initial increment of funding, with subsequent increments to be provided by amendments to the agreement. The key organizational unit within ICICI will be the ACE Group. The ACE Group will coordinate all activities under the ACE Project except final approval of loans (a Standing Committee of Directors will approve loans, per ICICI's standard operating procedures). USAID will contract directly for a U.S. institutional contractor to provide technical assistance for the ACE Project. ICICI will constitute an Advisory Council to provide guidance; however, it will not have a decision-making role. The Office of Technology Development and Enterprise (TDE) of USAID will appoint a project officer for ACE whose responsibilities will include monitoring the Project and helping to ensure that its implementation is achieving project objectives.

The life of project is seven years, with the PACD scheduled for September of 1998. Total project cost, including inflation at five percent, is \$30.9 million. There will be two funding sources: (1) an AID grant of \$20 million to the Government of India (administered by ICICI); and (2) the rupee equivalent of \$10.9 million contributed by the private sector.

## AGRICULTURAL COMMERCIALIZATION AND ENTERPRISE PROJECT

### 1. RATIONALE

#### 1.1. Agribusiness Potential

Agribusiness development in India has enormous untapped potential. Opportunities abound for expansion into new subsectors and markets, for economic growth, and for increased Indo-U.S. trade. Aggressive targeting of horticulture can stimulate income growth and increase exports, given the eagerness of Indian private sector agribusiness entrepreneurs to tap into the huge market of this high-value subsector.

The agricultural sector employs nearly 70 percent of India's workforce (directly or indirectly) and accounted for about 33 percent of GNP in 1989. Total production has risen steadily for the last 15 years: India now has a food surplus. In spite of this success, agro-industries, particularly in the fresh and processed fruits and vegetables subsector, have grown slowly. Continued economic growth demands that this subsector expand.

India's green revolution was founded on extensive government involvement, with government programs providing water, fertilizer, electricity, technical assistance, seeds, production credit, cooperatives, market facilities and infrastructure. Government programs have focused on creating input industries and supporting agricultural production by providing extension services and huge input subsidies. Post-farm agribusinesses have received only a miniscule fraction of the total government investment in agriculture.

Although substantial government effort has increased total production, agricultural growth in India since Independence has been relatively slow. Between 1970 and 1989, the volume of farm output in India increased, on average, 2.1 percent per year, in contrast to growth rates in Sri Lanka (5.1 percent), Malaysia (4.7 percent), Thailand (4.5 percent), Pakistan (3.9 percent), Indonesia (3.7 percent), and the Philippines (3.6 percent).

## 1.2. Constraints to High Value Agriculture in India

Compared to many other developing countries, India's growth in horticultural production, processing and exports has been remarkably slow. India is the world's second largest vegetable producer (12 percent of world production) and third largest fruit producer (eight percent of world production). Yet India's share of the world market for processed fruits and vegetables is less than 0.5 percent; for tropical fruit juices it is only four percent. Exports could increase if the quality and image of Indian products were improved.

India currently produces more than it consumes. Large amounts of produce are spoiled because of poor post-harvest handling, and inadequate distribution and marketing linkages. Despite tremendous output, India has yet to develop the modern support services and infrastructure necessary for sustained growth in the high-value horticultural sector.

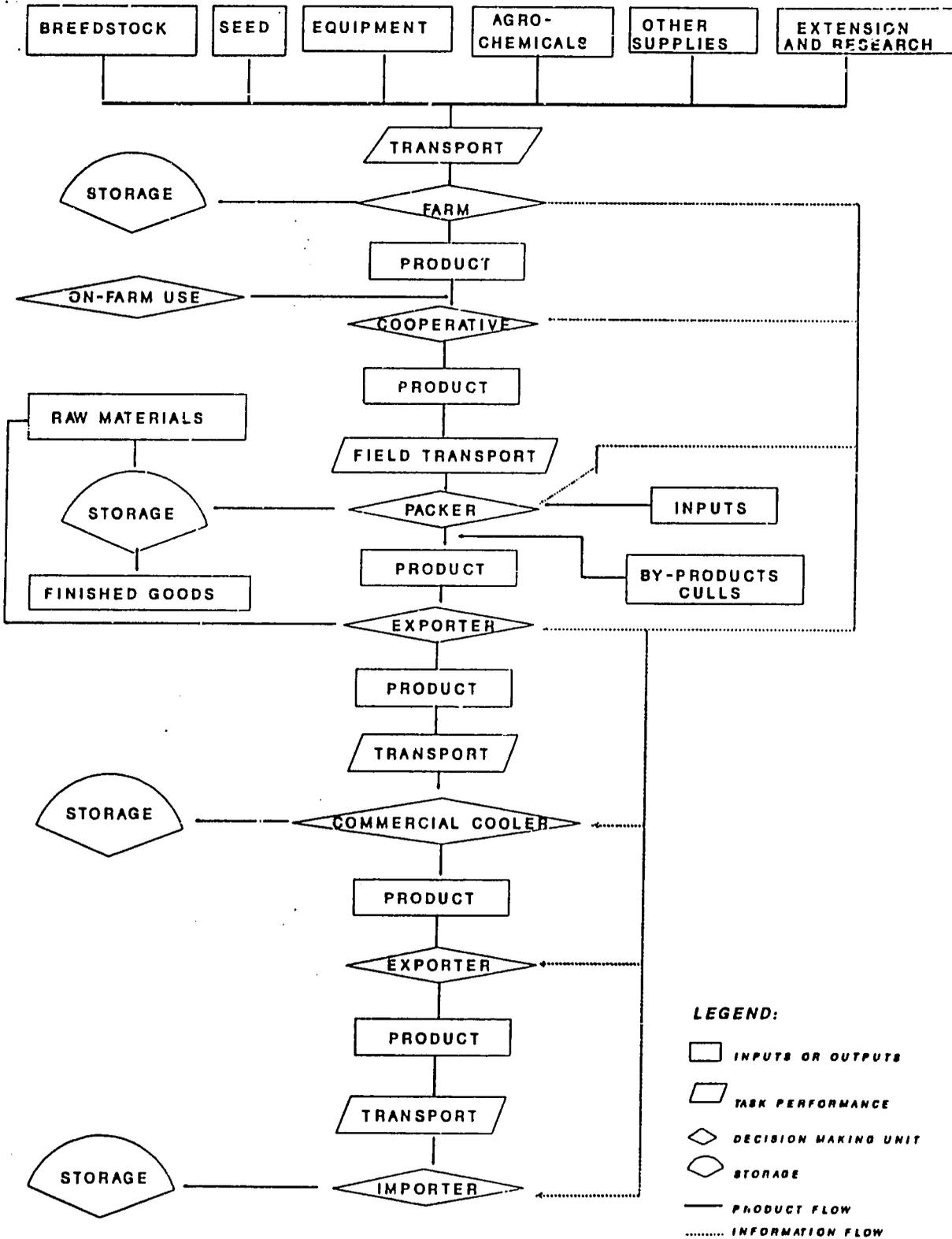
The Agricultural Commercialization and Enterprise (ACE) Project targets post-farm agro-industry. The "Agribusiness Opportunities and Constraints Final Report" of October 1990, the "Agricultural Commercialization and Enterprise Project Study" of December 1990, and the ACE Project Identification Document of March 1991 all identify the lack of integrated agribusiness services for post-farm products as one of the chief constraints to increasing growth and profitability in the fresh and processed fruits and vegetables industries.

On the following page is a schematic diagram of the linkages required for fresh agricultural products to reach markets. Sectors selected/targeted for assistance under the Project include:

- Post-harvest handling;
- Grading and sorting;
- Packaging and packing;
- Processing and storage;
- Marketing;
- Transportation; and
- Technical and market information services.

A complete description of the major constraints limiting each sector is presented in the Technical Analysis (Annex D).

CHART : FLOWCHART OF FRESH AGRICULTURAL PRODUCTS



### 1.3. The Need for A Private Sector Approach

Historically, Indian regulators and planners have viewed middlemen as a necessary evil in the agribusiness economy. Cold transport and storage and improved packing and packing materials have been viewed as nonessential luxury items in Indian planning models and industrial programs. Post-farm agribusiness services have been hampered by a variety of discriminatory policies and disincentives.

Since the mid 1980s, it has been widely recognized that India must develop its market-oriented post-farm services and infrastructure in order to realize its vast agribusiness potential. Substantial investment must be made in post-farm industries. Cross-national comparisons (of agribusiness growth) show that the most effective and sustainable post-farm agribusiness development is based on private firms creating the linkages between producers and consumers.

India's need for open markets and private post-farm investment is particularly pressing for subsectors that serve the high-value horticultural industry. High-value products demand high-quality handling and treatment beyond the farm gate, including cold transport and storage, processing, packaging, cargo handling, and transport services. India's public sector agricultural institutions, such as market yards, cold stores and cargo handling facilities, often do not meet the standards of today's competitive global agribusiness market.

To a great degree, the constraints to horticultural growth can be overcome by private sector-led investment in post-farm services and infrastructure. Indian private entrepreneurs have expressed strong interest in making these investments. However, they need incentives to undertake activities that are innovative, risky, and traditionally discouraged by the Indian government. They also require improved agribusiness policies, and better information about domestic and foreign markets and technologies.

The Project will encourage private entrepreneurs to establish critical agribusiness services and infrastructure in the horticultural subsector. At the same time, it will strengthen the ability of a business association to provide information to agribusiness and to facilitate dialogue between private firms and the government on agribusiness policy.

#### **1.4. Relationship to A.I.D. Strategy**

The Project, involving both the agricultural and industrial sectors, will support USAID/India's strategy as presented in the 1990 CDSS and updated and put into practice by the Program Performance Information System approved in AID/W last year. In the agribusiness sector, ACE will support the PPIS goal "to increase industrial efficiency and productivity by strengthening private sector market mechanisms." ACE will also address two of "The 12 Concerns" expressed by the Assistant Administrator in November 1990 to the APRE Bureau: "Planning for the evolution of our government-funded projects into activities led and funded by the private sector," and "Creation of guidelines for a 'good business climate,' and support for building such a climate." Further, the project will help implement the findings of the "Report on the Administrator's Senior Seminar on Global Agricultural Issues," which noted that "the Agency should consult with the U.S. and host country agribusiness interests to find ways to improve the environment for the private sector."

#### **1.5. Government of India Strategy and Other Donors**

After many years of a public sector-oriented view of agribusiness development, the GOI has begun to take measures to promote private agribusiness. It now provides exporters with market information and gives to food processing industries special treatment such as reduced licensing procedures, fiscal incentives, and reduced import duties for cold storage equipment. However, lending by the GOI's development finance institutions (DFIs) to private agribusiness is still new terrain. Much more could be done to create a positive environment for private agribusiness.

Several donors are helping the GOI to promote agribusiness through small projects. Most of these efforts are state or enterprise-specific, and often involve working through government-owned or controlled enterprises. No projects are underway or planned in the states (Maharashtra and secondarily Andhra Pradesh) targeted by ACE which focus on promotion of private agribusiness.

## 2. DESCRIPTION

### 2.1. Objectives

The goal of the ACE Project is to develop a dynamic private agribusiness sector in India. Its purpose is to improve the investment environment for private agribusiness in horticulture. ACE will work in all post-farm subsectors of horticulture, including post-harvest handling, packing, transport, cold storage, processing and marketing. During the seven year life of project it is anticipated that conditions for private sector investment in horticulture will improve, and that several private sector ventures will be established or strengthened in each subsector.

By the end of the Project, improvements in the agribusiness sector are expected to include:

- Increased private investment in the agribusiness sector;
- Improved linkages between horticulture producers, processors, and marketers;
- Increased flows of fresh and processed horticultural products to targeted export markets;
- Expanded bank lending to agribusiness industries, led by the Industrial Credit and Investment Corporation of India (ICICI); and
- Strengthened capability of a major business association to lobby for agribusiness policy and regulatory improvements.

### 2.2. The Role of ACE in USAID's Agriculture and Private Sector Development Program

No other project of USAID/India currently provides focused assistance to agribusiness. ACE is unique:

- ACE will promote private investment in agribusiness services that are currently unavailable or inadequate (including firms that are not yet ready for joint venture activity);
- ACE will provide training and technical assistance (TA) in state-of-the-art technical and operational methods for private agribusinesses;

- ACE will provide a grant to a major business association to conduct policy studies to improve agribusiness policy dialogue with a state government;
- ACE will assist the development of market information services for agribusiness; and
- ACE will promote, through loans and technical assistance, private investment in post-farm gate services and facilities.

ACE will also complement activities under USAID's Program for Advancement of Commercial Technology (PACT). Table 2.1 compares the ACE and PACT Projects.

TABLE 2.1: COMPARISON OF ACE AND PACT PROJECTS

	<u>ACE</u>	<u>PACT</u>
<b>Purpose:</b>	Improve the investment environment for private agribusiness in horticulture	Increase investment in commercial R&D
<b>Beneficiaries:</b>	Owners, managers, and employees of private agribusiness firms, suppliers of raw materials, consumers, business associations, lending institutions	Indo-American joint ventures in a wide range of industries, Indian R&D managers, lending institutions
<b>Sectors:</b>	Agribusiness with emphasis on processing and post-harvest services and infrastructure for horticulture industries	Not sector-specific
<b>Approach:</b>	Strengthen linkages between agricultural and industrial sectors, demonstrate the viability of investment in agribusiness, develop financial mechanisms to stimulate agribusiness investment	Demonstrate the viability of private investment in commercial R&D, build Indo-US trade and investment linkages, establish a model for commercial R&D financing

### 2.3. Geographic Concentration of Activities

Initially, ACE will focus on a single state - Maharashtra - to enhance project manageability and effectiveness. With a population of 79 million, Maharashtra is larger than many countries assisted by A.I.D. and can certainly absorb the Project's modest level of funding. (However, up to ten percent of project resources directed to private firms may be provided for activities outside the state if they support agribusiness in Maharashtra.) USAID identified Maharashtra as the best site for successful implementation of the ACE Project, i.e., with the greatest potential impact on private agribusiness development. It ranked first (and Andhra Pradesh second) in a comparison of India's states according to several factors including financial sector strength, infrastructure, fruit and vegetable production, policy environment, political stability, and potential for donor overlap. Following the mid-term evaluation, consideration will be given to the addition of Andhra Pradesh or another state to the ACE Project.

### 2.4. Implementing Agency

The implementing agency for ACE will be the Bombay-based Industrial Credit and Investment Corporation of India (ICICI), one of the country's three national-level developmental finance institutions. In its work with USAID on other projects (PACT, PACER, and CTD), ICICI has proven to be well-managed, effective, and innovative. ICICI will establish an ACE Group in its Technology Development Division to administer all components of the ACE Project.

The apex business association in Maharashtra, the Mahratta Chamber of Commerce and Industry (MCCI), will also play a key role in promotion, outreach and policy studies. MCCI is Maharashtra's largest business association. Its membership includes not only private firms from the agricultural and industrial sectors, but also several smaller associations related to agribusiness. Based in Pune, in the heart of a major agricultural and industrial region, MCCI will promote ACE state-wide to its members, implement the policy studies/dialogue activity of the project, and provide logistical support to the ICICI ACE Group as needed.

### 2.5. Commodity Focus

ACE activities will focus on fresh and processed fruits and vegetables, flowers and foliage -- a large target even for a limited area. While allocation of project resources will generally be demand-driven, a significant portion (perhaps 25 percent) will be targeted toward one crop subsector where India, and Maharashtra in particular, has a comparative advantage and where there is particularly great potential for ACE to fill identified needs of private entrepreneurs.

U.S. law prohibits assistance for agricultural export development if the commodity exported by the host country would compete in third country markets with a similar U.S. export commodity and cause substantial injury to U.S. exporters (the so-called "Bumpers Amendment"). It is anticipated that most of the horticultural ventures which receive assistance under the Project will involve agricultural commodities which are not produced in the U.S.; or if a similar commodity is grown or produced in the U.S., such commodity either is not exported by the U.S. or would not compete in the same third country markets or the same seasons as the commodity receiving assistance under the Project. Examples of such commodities are mango, grapes, papaya, guava, pomegranate and sapote. Since at this stage of the Project it is unknown what commodities may be proposed for assistance, an analysis cannot be undertaken to confirm compliance with the Bumpers Amendment. The institutional contractor financed under the Project will have direct responsibility for analyzing assistance proposals for compliance with the Bumpers Amendment prior to approval for financing.

Based on a preliminary analysis, the best candidate for an industry focus program in Maharashtra is the export grape agroindustry. The final selection, and the amount of project resources to be allocated, will be determined in the initial stages of project implementation after subsector studies are completed. Successful development of the grape agroindustry will serve as a model for the development of other agroindustry subsectors, and will remove constraints in such service industries as product cooling and packaging that cut across all agroindustries. Additionally, it will improve ICICI's ability to view an integrated system across one commodity, and will enhance its ability to appraise other commodities. The focus will ensure the coordination of the energies and talents of the ACE Group in the initial stage of the Project.

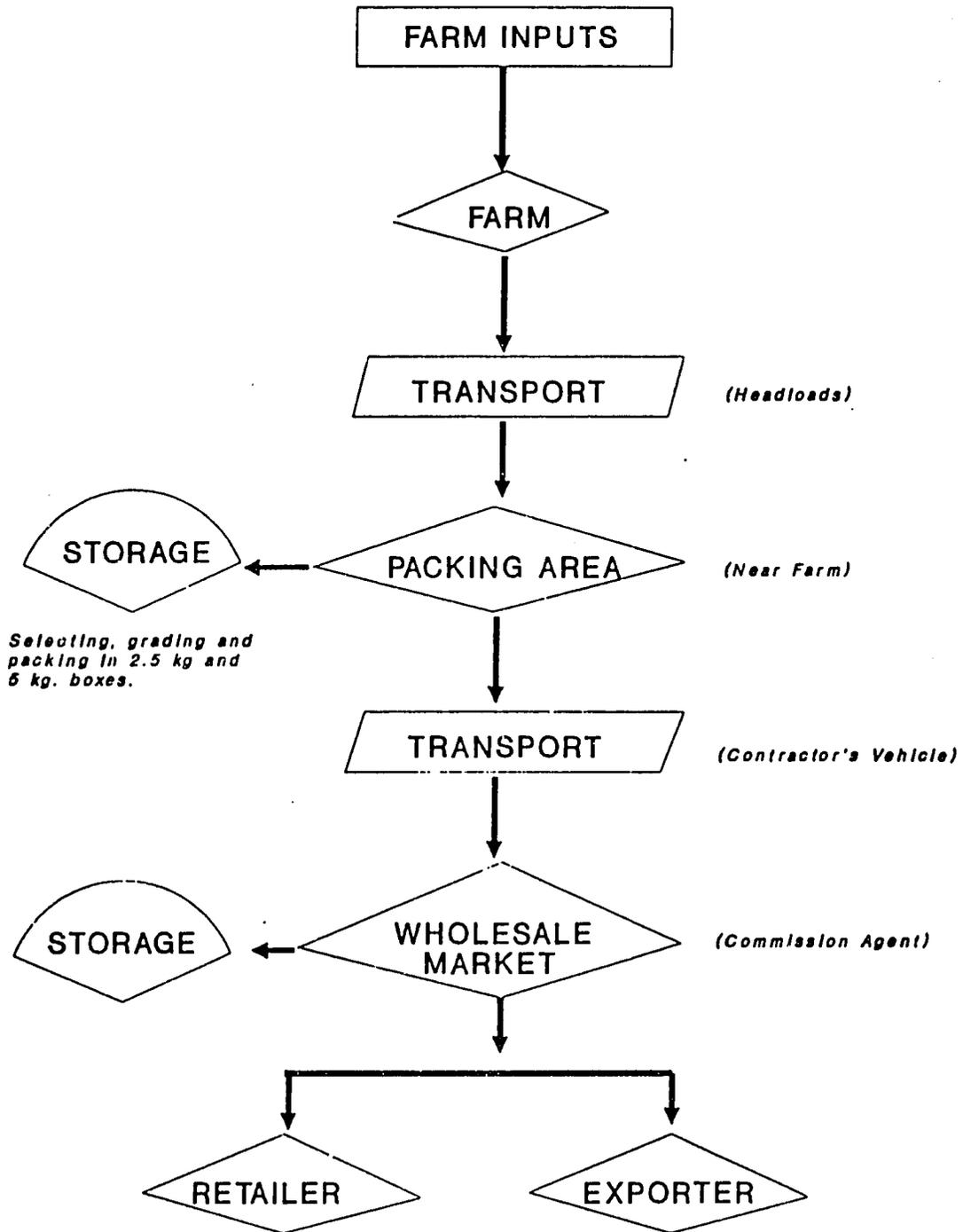
The objective of the grape focus area is to transform the Maharashtra fresh grape industry into a dynamic, competitive exporter within four years of project start up. On the following page is a diagram illustrating the grape industry in Maharashtra.

Project resources will provide the following:

Information

- a. A review of the feasibility and basic economics of India's fresh grape export industry;
- b. A market analysis for grapes in target markets;
- c. A description of the state-of-the-art technology for grape production, processing, packaging, handling and shipping;
- d. An analysis of agribusiness service industries to determine what changes must take place to develop a viable export business; and
- e. Integration of the above information to generate a strategy for the development of a fresh grape export agroindustry in Maharashtra.

### CHART : MAHARASHTRA FRESH GRAPE PRODUCTION AND MARKETING



### Policy Dialogue

A number of government policies at both the national and state level have hindered the development of a fresh grape export industry. ACE will fund studies to provide information about the adverse impact of particular policies, and will disseminate that information at both the state and national level, to leaders of agribusiness and decision-makers in government. This information will be valuable for promoting informed dialogue between the private sector and government.

### Creation of Additional Infrastructure

ACE will assist in developing the infrastructure necessary for export of fresh grapes from Maharashtra by promoting private investment in this area. Infrastructural needs include:

- Container handling/storage facilities;
- Refrigerated containers;
- Packaging material and pallet manufacture;
- Refrigerated transport;
- Refrigerated cooling/storage facility;
- Pre-cooling capability; and
- Packing/grading facilities.

### Technical and Administrative Assistance

The Project will provide technical assistance to fresh grape export firms and other private firms in the subsector to:

- Strengthen linkages with grape producers;
- Develop a business plan for use of culls as processed foods or other by-products (juices, jellies, etc.);
- Assist in developing an industry association which will provide information and act as a forum for the development of the grape export industry in Maharashtra;
- Provide information on markets and technologies new to India;
- Provide assistance with technical problems; and
- Assist firms in preparation of applications for ACE loans from ICICI.

### Trade and Investment Tours

The Project will also provide funds for participants in the grape export industry to make foreign observation tours, or trips by representatives of the U.S. private sector to India to determine commercial opportunities.

## 2.6. Project Activities

### 2.6.1. Activity Group 1: Loans to Private Agribusinesses

The Project will provide \$10.0 million to finance loans to be administered by ICICI for private agribusinesses. These funds will pay up to 50 percent of the costs of each project. This will be matched by \$10 million equivalent in rupees from the agribusiness firms and other participating financial institutions. The purpose of these loans is to provide capital to at least 25 agribusiness entrepreneurs for investment projects in post-farm agribusiness to help them compete more effectively in domestic or international markets. These investments will involve the introduction of an innovation, such as a new product, process, or market, for the borrowing entrepreneur. They might involve new technology, equipment, or services, available indigenously or from the U.S. ACE-funded technical assistance could help to identify potential investments. Another objective of these loans is to help ICICI learn more about and expand its lending operations for the agribusiness sector. The projects funded by these loans will demonstrate to the Indian private sector and financial institutions that investments in agribusiness post-farm services and facilities are "bankable."

Areas eligible for support from the loan funds will include post-harvest handling equipment and services, transport equipment and services, processing equipment and facilities, packing and packaging material production, product packing, and selected produce wholesale trading and marketing activities. Each project must be in the fresh or processed horticultural subsector. Loans will be made at commercial interest rates prevailing at ICICI, with no subsidies.

Loans will be available in either US dollars or Indian rupees. U.S. dollar loans will be made using the same terms and conditions as ICICI's Exchange Rate Administration Scheme. It is anticipated that the average loan will be \$400,000, with a maximum loan of \$750,000, and a typical loan term of 3-5 years.

Size of Businesses Served by ACE Loans: Using ICICI's standard loan to equity norm, an average ACE loan project will have the following characteristics:

Owner Equity	\$200,000
ACE Loan	\$400,000
W/C Loan from Other Bank	\$200,000
<u>Total Assets</u>	<u>\$800,000 - Rs. 20,800,000</u>

The GOI classifies projects with gross assets up to Rs. 7.5 million as "small-scale projects." Most ACE-financed projects will be medium-scale using standard definitions in India. In many cases ICICI will work with private entrepreneurs to arrange additional loans from other development finance institutions, banks or other ICICI facilities to increase the total project size. As part of the ACE Project promotional effort, ICICI ACE Group officers will assist entrepreneurs in packaging ACE loans and working capital loans from other banks to leverage ICICI ACE funds. Such syndication will not only expand the amount of funds available for private agribusiness, but will expose other financial institutions to ACE and ICICI operations and help them to improve their lending to the sector.

Firms that receive ACE loans may be of any size, but in order to avoid the appearance of favoritism toward India's larger private firms, no more than 25 percent of ACE loan funds shall be lent to India's top 100 firms (using gross assets as a measure of rank).

Proposal Review: ICICI's ACE Group will develop detailed criteria and procedures for evaluating applications for loans, but generally they will be similar to the ICICI standards for appraisal. These standards involve detailed financial and credit analysis and are considered state-of-the-art in India. Key criteria will include the requirement that the proposed investment project be profit-generating (and therefore self-sustaining for the entrepreneur), that it be innovative for the firm, and that it have significant positive impact on the firm's operations (e.g., productivity, sales, income). More weight will be given to proposals that are expected to have significant positive impact on employment or on the subsector, such as by boosting exports or by filling a key gap in the agribusiness system, or by improving market conditions. In addition, criteria will ensure that approved loans lead to investments that are environmentally sound (see the Environmental Analysis Annex I). When reviewing loan proposals, the ICICI ACE Group may call upon outside technical consultants (Indian or American) supplied by the ACE institutional contractor (discussed below).

Loan Approval and Administration: Once the financial, credit and technical reviews have been completed, the ACE Group will submit the proposal to a standing ICICI Committee of Directors for approval or rejection. If approved, the ACE Group Manager may initiate disbursement. After approval, ICICI will enter into a standard loan agreement with the proposing firm or firms. After completion of an ACE loan agreement, the ACE loan will be administered following ICICI's usual loan monitoring and management procedures.

### 2.6.2. Activity Group 2: Technical Assistance and Trade & Investment Tours for Private Firms

Technical Assistance: ACE will provide technical assistance, supplied by the institutional contractor from India and the U.S., to help over 100 private firms in designing and/or implementing innovative projects related to post-farm horticultural development. A total of 42 person-months of TA will be provided per year (during project years 2-6), which equals a total of 210 person-months over the life of the Project. The following types of TA will be provided to private firms:

- Assistance in preparing ACE Project proposals and loan applications;
- Market and technology information and assessment;
- Product and process development for horticulture;
- Advice on technical and management improvement for existing plants and businesses; and
- Investment project planning.

ACE will provide technical assistance on a demand-driven basis, meaning that an entrepreneur will identify his/her own need and present it formally to the ACE Group. TA will only be provided for planning or implementing projects that have a significant chance of commercial success. A typical TA assignment for a firm would be 4-8 weeks, but each request will be reviewed on its own merits. In order to maximize the impact of these TA resources, ACE will provide repeat TA on a demand-driven basis to certain firms with promising agribusiness projects.

A firm will be eligible to receive ACE technical assistance whether or not it receives an ACE loan. Like loan requests, requests for TA will be reviewed by the ACE Group, perhaps with technical consultant support, but they will be approved by the ACE Group Manager without submission to the Committee of Directors.

Firms will be charged a nominal sum, in rupees, for the technical assistance, according to a fee structure established by the ACE Group. The cost of TA will not be reimbursed from ACE loan repayments or added to the ACE loan amount. Collected fees will be kept in a segregated ACE account for ICICI for programming in support of the Project.

Trade and Investment Tours: ACE will finance and organize approximately 15 trade and investment tours for Indian horticultural entrepreneurs to visit U.S. firms and for representatives of the U.S. private sector to visit India. The objective of these tours is to build commercial linkages and expand trade horizons. Requests for such tours must be demand-driven, that is, initiated by representatives of Indian or U.S. private sector interests. Proposals may be for tours which stand alone; they may constitute part of a "package" including a loan and technical assistance; or they may be expected to result in an ACE package. Three types of tours are planned:

- Trips by representatives of individual firms to meet potential buyers of a product, sellers of a technology or equipment, or joint venture partners;
- Trips by members of an industry association to observe production, handling, processing, transport, packaging and marketing operations in a specific commodity or industrial product or service (such as packaging or transport); and
- Trips by representatives of the U.S. private sector to India to determine commercial opportunities.

The ACE Group will assist the entrepreneur or industry association in submitting a tour proposal. Once it is approved by the ACE Group Manager, the Group will issue a work order to the institutional contractor to organize the study tour. The contractor will submit an itinerary to the ACE Group for approval, and will be responsible for making the necessary logistical and travel arrangements.

### 2.6.3. Activity Group 3: Support to ICICI for Agribusiness Lending

Sectoral Studies: Once the institutional contractor is in place, the ICICI ACE Group will commission it to undertake sectoral prefeasibility studies to help identify the best subsectors and types of investment projects to promote, looking at such factors as production costs, comparative advantage, and markets. These studies will help guide ACE support to the horticultural sector. The first studies to be undertaken will likely examine:

- Fresh grape exports;
- Processed grape products;
- Cold storage equipment and facilities;
- Cold transport equipment;
- Field chilling equipment and facilities; and
- Container handling and transport equipment and facilities.

After the initial set of studies, additional studies will be conducted only when the ACE Group has received serious requests to provide assistance in a particular industry or subsector. These studies will also be undertaken for the ACE Group by technical assistance from the institutional contractor. A total of approximately eight sectoral studies will be undertaken by ACE. In each subsector study (e.g., fresh grape exports, processed mangoes), the following issues will be examined:

#### Domestic or Export Market Analysis

- Total demand;
- Market structure and operation;
- Marketing margins and value added;
- Fluctuations in demand;
- Product and quality standards;
- Survey of traders/wholesalers;
- Specialty or niche markets;
- Regulatory environment; and
- Indian comparative advantage.

#### Production Analysis

- Production (location, area, yield, season); and
- Costs of production (pre-harvest).

#### Short-Term Agribusiness Training for Financial Institution

Officers: All ACE Group professional staff and up to ten state financial institution staff (e.g., state level DFIs, commercial banks) will attend a short agribusiness training course in the U.S. or in India. The purpose is to build the agribusiness lending skills of loan officers in ICICI and state-level financial organizations. Topics would likely include an overview of the agribusiness system, subsector analysis, agribusiness service and infrastructure lending, agribusiness trade finance, and information sources and systems. The institutional contractor will arrange a course first for approximately five ICICI staff and later for approximately five additional ICICI staff and ten state-level financial officers.

Support for ICICI Implementation of the ACE Project: The Project will also provide limited funding and technical support to ICICI to further its implementation and promotion of ACE. Funding will be provided for staff travel, preparation and distribution of promotional materials, workshops, limited computerization and incidental costs related to project promotion. Technical support will be supplied by the institutional contractor to assist in technical review of proposals, developing strategy and criteria for lending to agribusiness, and other tasks as necessary for project implementation.

#### 2.6.4. Activity Group 4: Support to the Mahratta Chamber of Commerce and Industry for Agribusiness

ICICI will provide an ACE-funded grant, supplemented by limited technical assistance from the institutional contractor, to the Mahratta Chamber of Commerce and Industry (MCCI) to strengthen its activities in the agribusiness sector. This grant and TA will provide support to MCCI for conducting policy studies, providing services to members, and working with ICICI to promote ACE in Maharashtra. Based on review by the ACE Group, ICICI may renew the grant and TA on an annual basis. Decisions concerning the grant and TA will be made by the ACE Group Manager and need not go to the Committee of Directors.

Policy Studies: With ACE grant funds and TA, MCCI will conduct studies on policy issues directly related to post-farm agribusiness, and will use its findings to support its policy dialogue with the government on agribusiness. MCCI will likely contract out the studies to Indian consulting firms, NGO research institutions, universities or individuals. The study topics and terms of reference will be generated by MCCI staff, with inputs from the ACE Group and TA, and will reflect the policy and regulatory interests of the association's members. Grant funding will also support dissemination of policy studies through publication, workshops and other means. The grant will fund approximately eight studies and related workshops over the life of the project.

Membership Services and ACE Promotion: The grant and TA to MCCI will also support its provision of services to members in agribusiness. The grant and TA will support training, establishment of information services, or other services proposed by MCCI and agreed on by the ACE Group. In addition, the grant will fund MCCI's efforts to promote the Project to its members throughout the state, such as through publicity, workshops, and referrals to the ACE Group. The grant will also fund the costs of logistic support (such as office space, desk and telephone), to be provided by MCCI to the ACE Group when it visits from Bombay, as agreed by the association and ICICI.

### 3. IMPLEMENTATION PLAN

#### 3.1. Project Agreement

The ACE Project Agreement will be jointly signed by USAID, the Ministry of Finance/Department of Economic Affairs (DEA), and ICICI. The first agreement will provide the initial increment of funding, with subsequent increments provided by amendments to the agreement.

#### 3.2. Implementation Responsibilities

##### 3.2.1. ICICI

The implementing agency for the Project will be ICICI, a development finance institution based in Bombay. The key organizational unit within ICICI will be the ACE Group located in ICICI's Technology Development Division in Bombay. The ACE Group will be established as a separate unit consisting of an ACE Group Manager, three principal officers, and secretarial support staff. Following the mid-term evaluation, if Andhra Pradesh or another state is added as a second ACE implementation state, the ACE Group may establish a representational office in an appropriate location in the chosen state.

The ACE Group will coordinate all activities under the Project, including identification and evaluation of proposals, project promotion, establishment of effective relationships with private and public institutions within Maharashtra, establishment of a grant with MCCI, and approval of all project-funded activities except loans. The ACE Group will also closely monitor all activities supported by the Project. The Group will solicit technical reviews from the Project's U.S. prime and Indian subcontract institutional contractors, and other outside consultants when necessary for evaluation of client proposals.

In addition, the ACE Group will draw on the other considerable resources of ICICI as necessary to help implement the Project. For example, if an entrepreneur seeking ACE assistance could benefit from funding for technology commercialization, the Group could seek the assistance of PACT (also in the Technology Development Division of ICICI) or the Technology Development and Information Company of India (TDICI) (a venture capital subsidiary of ICICI).

ICICI vests authority for loan approval in a Committee of Directors composed of ICICI officers, including at least two divisional directors. ACE will likewise use this mechanism.

### 3.2.2. ACE Agribusiness Group Organization

It is likely that ICICI will designate all line staff within the ACE Group as "ACE officers." Each ACE officer will perform a full service function including promotion, marketing of ACE services, and management of ACE assistance resources. However the officers are designated, they will cover the following functions: promotion and information, lending, technical assistance, and overall supervision.

<u>Function</u>	<u>Responsibility</u>
ACE Group Manager	Reports to ICICI Chairman/Deputy Managing Director; responsive to Advisory Council; supervises and administers ACE Project; acts as key contact point for USAID; divides administrative time between loan and technical assistance proposals, and promotional activities.
Promotion and Information	Oversees the development and distribution of promotional literature, and organizes education programs for ACE; works with state and local organizations; oversees grant to MCCI.
Lending	Oversees loan operations; ensures all preconditions are met and prepares final documentation for ICICI approval; monitors loan performance.
Technical Assistance	Oversees the technical assistance programs; supports line officers; ensures TA is properly carried out; coordinates with institutional contractor.

### 3.2.3. Institutional Contractor

USAID will contract directly for a U.S. institutional contractor with suitable agribusiness experience to provide technical assistance for the Project. The contract will be of five years' duration. Standard A.I.D. competitive contracting procedures are anticipated to conclude nine months after initiation of the Project. The contract is expected to include the substantial participation of a private sector Indian consulting firm (probably in the form of a subcontract).

Although the contract will be with USAID, the institutional contractor will report directly to and be under the supervision of ICICI's ACE Group. The tasks of the contractor will be to:

- Provide technical assistance to Indian agribusiness firms;
- Provide limited technical assistance to MCCI;
- Organize and arrange training, including logistics, of the staff of ICICI and other financial institutions in agribusiness, in either the U.S. or India;
- Organize and arrange trade and investment tours, including logistics, for Indian entrepreneurs to visit U.S. firms, and for trips by representatives of the U.S. private sector to India;
- Assist the ACE Group in organizing and conducting feasibility studies in various agribusiness subsectors;
- Assist the ACE Group in developing a strategy and technical criteria for lending to agribusiness;
- Assist in technical review of proposals submitted to the ACE Group; and
- Assist the ACE group, as needed, in other aspects of ACE implementation and promotion.

To carry out these tasks, the institutional contractor will maintain a roster of U.S. and Indian experts to be on call to the ACE Group as needed. To coordinate the supply of experts, arrangement of training, and organization of trade and investment tours with ICICI, the contractor will appoint a Technical Coordinator. This Coordinator will be based in the U.S., work at least half-time on the Project, and spend about three months each year in India working with the ACE Group. The Coordinator will represent the contractor to ICICI and USAID.

#### 3.2.4. ACE Advisory Council

ICICI will constitute an Advisory Council at the beginning of ACE implementation to provide guidance and advice for the project. The Council will be comprised of representatives from ICICI (2, including chair), USAID (1), DEA (1), state government (1), the banking sector (1), a management institute (1), a horticultural specialist from a university or a research institute (1), and the private sector (4). One of the private sector representatives is expected to be a senior officer of MCCI and one will be from a trade association that represents U.S. interests in India.

The Advisory Council will meet every six months in Bombay or Pune. It will monitor the progress of ACE activities, help assure adherence to ACE Project objectives, make recommendations to strengthen or alter ACE, and serve as a forum for dialogue. However, it will not have a decision-making role.

### 3.2.5. USAID

The Office of Technology Development and Enterprise Office (TDE) of USAID/I will appoint a project officer for ACE whose responsibilities will include monitoring the Project and helping ensure that its implementation is achieving project objectives. The TDE Office Director (or designee) will represent USAID/I on the Advisory Council.

The project officer will be supported by other USAID staff, such as the Regional Contracting Officer for contracting with the institutional contractor, the Controller's Office for financial review, budgeting and contract payments, and the Office of Program Development and Project Support for procurement, monitoring and evaluation. Together, these and other officers will meet periodically as the Project Implementation Committee to review and make recommendations for the Project.

### 3.3. Clients

The Project's primary clients will be private firms providing goods or services to the agro-industrial sector. Secondary clients will be MCCI and its member trade associations serving private firms in the sector. Private sector firms will be eligible for loans and all types of assistance which fall under the institutional contractor.

The ACE Group will work closely with MCCI as a means of strengthening its relationship with ACE. ICICI will negotiate a grant with MCCI to fund policy studies, provide operational support for the agribusiness activities of this association, and ensure that MCCI promotes the Project to its members.

### 3.4. Implementation Procedures

The first project year will be devoted to appointing staff, forming the ACE Group and Advisory Council, recruiting the institutional contractor, developing a grant with MCCI, and establishing operational systems.

After these steps are completed and the ACE Group starts to promote the project, potential clients will begin submitting proposals for consideration. Therefore, it is imperative that ICICI staff be in place with a clear idea of the types of proposals they will support, including selection criteria for reviewing each proposal.

#### 3.4.1. Subsector Studies

The ACE Group, drawing on inputs from the Advisory Council and the institutional contractor, will conduct subsector studies in the early stages of the project. These studies will provide in-depth analysis of the points of intervention with the greatest impact on sector development.

Once the institutional contract is in place, one of the first activities will be to initiate subsector studies, probably on fresh grapes for exports and processed grape products. Other subsector studies will be initiated later, as identified by the ACE Group. Although each crop or product may have unique handling, transport, storage and marketing requirements, many services are needed across several crop subsectors. Therefore, subsector studies will also be prepared for cold transport, cold storage, field chilling and container transport industries. These subsector studies will be used by the ACE Group for project promotion and for proposal evaluation. Over a relatively short period of time, ICICI will develop sectoral expertise in several crops and services.

The ACE Group will also be a resource for information on agribusiness for entrepreneurs and the associations representing producers, manufacturers and marketers.

#### 3.4.2. Proposal Development and Approval

In the initial stages of the Project, clients may not understand the procedures for preparing proposals for ACE assistance. ACE Group officers will have to conduct a series of promotional seminars to inform clients about the types of ACE resources that are available. Following is a description of the typical application process for a proposal requiring a loan:

- A client develops a proposal (perhaps with earlier technical assistance provided by ACE) for an agribusiness project;
- The client approaches an ACE Group officer after introduction to ACE through earlier promotional efforts; the ACE officer discusses the merits of the proposal;

- The ACE officer reviews the proposal and points out any deficiencies in the application to the potential client; if the application needs further work, the ACE officer will indicate the additional information required;
- If the proposal has merit, the ACE officer forwards it for review to the ACE Group;
- An ACE Group team, made up of relevant specialists (including consultants if necessary) is assigned to appraise the proposal either in Bombay or in the field;
- Upon receipt of the appraisal the ACE Group has three options: return the proposal to the applicant for further modifications, reject it, or pass it on to the Committee of Directors;
- If passed to the Committee of Directors, the proposal may still be returned to the applicant or rejected; and
- If the Committee of Directors approves the loan, the ACE Group Manager proceeds with disbursement of funds.

### 3.4.3. Promotion

The ACE Group will take a pro-active role in promoting the project. Promotion could include direct mailings of literature, seminars, workshops, media promotion, or an ACE newsletter. Since potential clients cannot be expected to respond to ACE opportunities by mail or by travelling to Bombay, ACE Group officers will travel frequently throughout Maharashtra.

MCCI will play an important role in promoting ACE; details of this role will be specified in the grant established between it and ICICI by the end of the first year of the Project.

### 3.5. Implementation Schedule

<u>Action</u>	<u>Agent</u>	<u>Date</u>
Sign Project Agreement	USAID, DEA, ICICI	8/91
Establish ACE Group, Advisory Council	ICICI	11/91
Meet Conditions Precedent to initial disbursement	ICICI	12/91
Issue Request for Proposal for instit. contract.	USAID, ICICI	12/91
Propose lending terms, review criteria, procedures	ICICI	1/92
First Advisory Council meeting	ICICI	2/92
Approve lending terms, etc.	USAID	2/92
Develop ACE literature, begin promotion	ICICI	2/92
Sign grant with MCCI	ICICI, MCCI	2/92
MCCI promotion begins	MCCI	3/92
Review first proposals	ICICI	4/92
Approve first proposals	ICICI	6/92
Second Advisory Council meeting	ICICI	7/92
Review, award institutional contract	USAID, ICICI	7/92
Begin disbursement for first proposals	ICICI	8/92
Plan first subsector studies	ICICI	9/92
First ACE Group staff receive ST training	ICICI	9/92
Reflows of interest begin	ICICI	11/92
Complete first subsector studies, disseminate	ICICI	12/92
Third Advisory Council meeting	ICICI	12/92
Revise proposal review procedures, criteria	ICICI	1/93
Renew MCCI grant	ICICI, MCCI	2/93
Reflows of principal begin	ICICI	8/94
Mid-term evaluation	ICICI, USAID	9/94
Institutional contract ends	USAID, ICICI	6/97
Final evaluation	ICICI, USAID	8/98
PACD		9/98

#### 4. COST ESTIMATES AND FINANCIAL PLAN

##### 4.1. Overview

As seen in Table 4.1: Summary Cost Estimate and Financial Plan, the estimated base cost of the Project is \$27.40 million. In addition to this, a physical contingency of \$2.43 million and a price contingency (inflation) of \$1.04 million has been budgeted, making the total cost of the Project \$30.9 million.

Inflation has been computed on a compounded basis. The financial plan assumes five percent inflation for all dollar-financed foreign exchange costs. No inflation has been calculated for dollar-financed local currency costs, as the financial plan assumes that the local inflation for such costs will be offset by depreciation in the rupee/dollar exchange rate. The host country may use different contingency and inflation rates for its funding purposes. However, A.I.D. feels that the physical contingency and price contingency percentages used in the financial plan are realistic.

There will be two funding sources for financing the Project: (1) an A.I.D. grant of \$20 million (64.7 percent) to ICICI for making loans to private sector agribusiness firms, and for meeting other project costs such as training and technical assistance, a grant to MCCI, project promotion costs, and contingency; and (2) the rupee equivalent of \$10.9 million (35.3 percent) contributed by the private sector. Nearly 60 percent of the A.I.D.'s contribution will be in foreign currency.

##### 4.2. Cost Summary

The total project cost of \$30.9 million is broken down as follows: \$20 million for sub-project financing; \$5.94 million for training and technical assistance; \$0.57 million for a grant to MCCI; \$0.92 million to support ICICI for agribusiness lending; \$2.43 million for contingencies; and \$1.04 million for inflation.

It should be noted that this Project Paper has taken into account the probable depreciation of the rupee vis-a-vis the US dollar which has ranged from eight to 15 percent over the past three years. As the expected inflation rate of ten to 14 percent on local currency costs approximately equals the expected rupee devaluation, no inflation has been provided on dollar-financed local currency costs. The inflation and contingency costs of the Project together work out to approximately 11.0 percent of project cost and are considered adequate to pay for price contingencies and unforeseen costs.



TABLE 4.1 SUMMARY COST ESTIMATE AND FINANCIAL PLAN (BY FY)  
(IN \$000)

COST COMPONENT	1992			1993			1994			1995		
	USAID FX	LC	GOM/ICICI LC	USAID FX	LC	GOM/ICICI LC	USAID FX	LC	GOM/ICICI LC	USAID FX	LC	GOM/ICICI LC
I. FINANCING												
Loans	250	250	500	625	625	1,250	1,250	1,250	2,500	1,250	1,250	2,500
II. TECHNICAL ASSISTANCE												
TA to Private Firms	149	36	0	448	108	0	448	108	0	448	108	0
Other TA (ICICI/Trade Assoc.)	50	29	0	149	86	0	149	86	0	149	86	0
Trade & Investment Tours	0	0	0	106	0	0	106	0	0	106	0	0
Core Cost - Inst. Contractor	40	13	0	178	54	0	141	39	0	141	39	0
Monitoring, Evaluation, Audit and Financial Reviews	0	0	0	0	0	0	100	0	0	0	0	0
Subtotal	239	78	0	881	248	0	943	233	0	843	233	0
III. GRANTS												
Business Assn. Grant	0	110	0	0	92	0	0	92	0	0	92	0
IV. SUPPORT TO ICICI												
Feasibility Studies	0	0	0	187	77	0	0	0	0	0	0	0
ST US Training	0	0	0	31	0	0	0	0	0	61	0	0
Promotional Expenses	23	62	0	0	74	0	0	74	0	0	74	0
SUB TOTAL	23	62	0	218	151	0	0	74	0	61	74	0
V. TOTAL	512	500	500	1,723	1,116	1,250	2,193	1,649	2,500	2,154	1,649	2,500
VI. CONTINGENCY	45	44	45	151	98	113	192	145	225	189	145	225
VII. INFLATION	8	0	0	95	0	0	148	0	0	204	0	0
VIII. GRAND TOTAL	565	544	545	1,969	1,214	1,363	2,533	1,794	2,725	2,547	1,794	2,725

Given the anticipated project implementation schedule, the expenditures financed by A.I.D. are largest during the Project's first five years because of heavy commitments of funds for term loans to private agribusinesses. Project expenditures in the sixth year are almost exclusively technical assistance, training and grants to business associations (initially MCCI). The seventh year is meant to ensure that loan disbursements made by ICICI under the loan component are fully liquidated for the intended purposes and thus do not involve any expenditures apart from recurrent costs (see Table 4.1).

A summary of projected commitments for financing project-supported activities during each project year is given below.

TABLE 4.2: COMMITMENT PROJECTIONS FOR ACE PROJECT  
(in \$000s)

<u>FY</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>Total</u>
AMOUNT	\$3,758	\$3,562	\$5,517	\$4,070	\$1,550	\$1,543	\$20,000

The ACE Group will establish a procedure (with USAID agreement) to ensure that users (benefitting agribusiness firms) contribute to the costs of technical assistance. These contributions may be used by ICICI either for procuring additional technical assistance, making additional loans, or for other activities in support of ACE objectives as agreed by USAID. In addition, during the latter three project years, substantial reflows of principal and interest will be received by ICICI. Therefore, the level of funds available to the Project will be larger than is apparent in the Projection of Expenditures by Fiscal Year table.

#### 4.3. Sustainability

Although ICICI is expected to continue agribusiness lending to the types of firms targeted by the Project after the Project Assistance Completion Date of September 30, 1998, ICICI will not be required by the grant agreement to continue technical assistance, support to business associations and other software components of the Project beyond that date. ACE is designed to enhance the skills of ICICI staff to serve agribusiness. Provided agribusiness lending is profitable for the bank, ICICI will continue lending to this market at much higher levels than at the beginning of the project. If agribusiness lending is not profitable for ICICI, the bank will not continue to lend to this sector after the PACD. In that event, the reflow funds will be separately accounted for by ICICI and used for such purposes as are agreed upon between ICICI and A.I.D.

Thus, with the exception of loan management responsibilities after year seven, there will be no recurrent costs associated with the Project after project completion. As the loans will be made at the commercial rates used by ICICI and other DFIs, it is expected that the interest reflows will be sufficient to meet recurrent costs and to increase the core amount available to be loaned. However, to ensure that the core amount available to be loaned does not decapitalize in real terms (i.e., interest reflows attributed to the core are not less than the expected inflation rate), A.I.D will negotiate with ICICI a maximum percentage of interest appropriation towards recurrent costs, conventional banking appropriations and statutory deductions, if applicable.

The majority of project assistance will be provided to private firms. It is anticipated that firms undertaking projects using ACE resources will continue with these projects as long as they are financially viable. Under conditions of financially viable projects, all operational costs of private agribusiness projects supported by ACE will be borne by the firms themselves. Thus, apart from the need for ICICI to identify and concentrate resources on financially viable projects, there will be no important sustainability issues raised by the Project.

#### 4.4. A.I.D. Contribution

The A.I.D. contribution of \$20 million will be funding important inputs for strengthening private agribusiness operations in India. A total of approximately \$16 million (80 percent) of A.I.D.'s contribution will be provided to private firms as loans, technical assistance, or the financing of trade and investment tours, or as other technical assistance (e.g., for ICICI and MCCI, evaluation and audit). Another \$0.6 million (three percent) will be provided as a grant to MCCI for institutional strengthening, policy studies and dialogue, and ACE promotion. The remaining amounts of \$0.9 million (4.5 percent) and \$2.6 million (12.5 percent) will be used for support to ICICI and for contingency and inflation.

#### 4.5. Summary

The cost estimates shown above are reasonable, in the sense that the Project budget was constructed from the "bottom up" using the best available data at the time. This is especially true for ICICI's costs, and implementation of the loan and grant facilities. Much effort has gone into determining the appropriate balance of financing and technical assistance and training activities required to implement an innovative, demand-driven project like this one. Therefore, the ACE design team feels comfortable in providing an assurance that the budget reasonably reflects the costs to be incurred in project implementation.

#### 4.6. Disbursement Procedures

Disbursements for Foreign Exchange Costs: Three mechanisms, as described below, are available to defray the foreign exchange costs of goods and services procured from the U.S. Of these, the first two primarily apply to host country contracts and the third to direct A.I.D. contracts.

Under the first mechanism, A.I.D. will issue a Bank Letter of Commitment (Bank L/Comm) on a U.S. bank for the required amount showing ICICI as the beneficiary. ICICI will issue Letters of Credit against the Bank L/Comm for the required amounts in favor of the U.S. suppliers. After the goods are shipped (and/or the services performed) by a U.S. supplier, he/she can claim payment from the U.S. bank by submitting to it the necessary documentation as described in the Letter of Credit. The U.S. bank will claim reimbursements for these payments as well as the related bank charges from A.I.D., and A.I.D. in turn will charge these to the Project.

Under the second mechanism, A.I.D. may issue direct Letters of Commitment to U.S. suppliers of goods and services or may make direct payments on request of ICICI to U.S. suppliers. The payments will be made by A.I.D. directly to suppliers of goods and services on receipt of invoices and supporting documents duly approved for receipt of goods and/or performance of services by the implementing authority.

Under the third mechanism, A.I.D. will contract directly with the U.S. contractors for supply of goods or services. Payments under such an arrangement will be made directly to the U.S. contractors by A.I.D. and charged to the Project.

Disbursements for Local Currency Costs: Concerning all eligible local currency costs, ICICI will claim reimbursement by directly submitting to USAID, Voucher SF-1034 in original and three copies showing the details of payments made (or payments expected to be made in next the 90 days in case of advances). This voucher should be duly certified by an authorized official of ICICI and may be submitted quarterly or as often as necessary.

#### 4.7. Financing Methods

The methods of implementation and financing of the various project elements are shown in Table 4.3. Direct reimbursements will mostly be for the local currency component of loans, technical assistance, training and equipment procurement. The total base cost of the A.I.D.-financed local currency component is estimated to be \$7.4 million.

**Table 4.2: CONTRACTING PLAN AND METHOD OF PAYMENT**

	ITEM	METHOD OF IMPLEMENTATION	METHOD OF FINANCING	BASE COST
1.	Loans	Host Country Financing - includes procurement of equipment	Direct Reimbursement Direct Payment Direct L/Comm Bank L/Comm (Selectively)	\$ 10 million
2.	Technical Assistance	Direct Contracting	Direct Payment	\$ 6 million
3.	Grants	Subgrants by the Implementing Agency	Direct Reimbursement	\$ 0.6 million
4.	Support to ICICI	Host Country Financing Direct Contracting	Direct Reimbursement Direct Payment	\$ 0.8 million

A.I.D. direct payments will be made for offshore procurement of equipment, overseas training, technical assistance, evaluation and audits. Payments for commodities financed under the project will be made either directly by A.I.D., or through an institutional contractor, or through a Procurement Services Agent, or directly by the implementing authority under host country contracts. In case the procurement is made through the procurement services agent or the implementing authority, A.I.D. may use a Bank Letter of Commitment for making such payments provided the value of each individual item is less than \$500,000. The Mission anticipates that in the case of loans to be financed under the Project the commodities will be procured from a number of suppliers and will be spread throughout the life of the Project. Hence, in view of proliferated invoices, USAID proposes to use the Bank L/Comm for the purpose of procuring equipment, if it is procured through a Procurement Services Agent or through the implementing agency. However, as required by Handbook 15, the Controller's Office will consider using Direct Letters of Commitment (Direct L/Coms) instead of Bank Letters of Commitment (Bank L/Coms) wherever possible.

#### 4.8. Financial Monitoring and Assessment of ICICI Procedures

The Project will be implemented by ICICI, a well-managed and established DFI with a sound financial position and satisfactory accounting and reporting systems. ICICI's financial control and reporting procedures for the loan and business association project grant components will follow ICICI's standard operational procedures, subject to special requirements of the ACE Project Grant Agreement, or further specified by PILs.

Based on experience with three other projects (PACT, PACER, CTD), USAID has reasonable assurance that ICICI has the necessary financial management and control systems to implement the ACE Project and to assure adequate accountability. The Basic Project Implementation Letter will specify ICICI's procedures for reporting to USAID. These will include the following submissions: quarterly financial reports and semi-annual progress reports showing actual versus planned implementation, operations and financial performance; an annual schedule of projected disbursements and utilization of project funds; annual updates of financial projections, and reports on the borrowers/grantees receiving assistance in accordance with procedures to be established by USAID. If a host country contract of \$250,000 or more is proposed under the Project, USAID will conduct a specific evaluation of contracting procedures of ICICI and/or the contracting entity, as required by A.I.D.'s revised Host Country Contracting Guidelines. Furthermore, USAID may at its option conduct accounting and internal control reviews of ICICI and firms taking loans from ICICI. The costs of these reviews will be charged to the Project.

#### 4.9 ICICI Use of ACE Loan Fund Reflows

During the Project's seven-year life, there will be an estimated \$7.1 million in reflows (including \$4.5 million in gross interest earnings). ICICI will deposit the reflows into a separate interest bearing account and reloan them to qualifying projects under the same terms and conditions and for the same objectives as those governing the original loans. ICICI may retain actual appropriation of the interest reflows towards their administrative and operational costs, conventional banking provisions (including write-offs), and other statutory deductions, if applicable. However, to ensure that the core amount available to be loaned does not decapitalize in real terms (i.e., interest reflows attributed to the core are not less than the expected inflation rate), USAID will negotiate a maximum percentage of interest allocation towards the aforementioned appropriations. USAID and ICICI will agree upon this percentage during the initial phases of project implementation before authorizing utilization of reflows by the ICICI.

#### 4.10 Audit

ICICI will be required to maintain separate books and records related to the utilization of the A.I.D. grant funds. These shall provide records of the activities financed under the Project relating to loans, technical assistance, grants to business association, feasibility studies, project promotion, monitoring and evaluation. ICICI will arrange to have its books, records and ACE Project subactivities audited annually by an independent auditor in accordance with guidelines to be provided by USAID. These audit reports will be submitted to USAID within 30 working days after completion of the audit. In addition, ICICI's books and records will be available for inspection and audit by the A.I.D. Inspector General and/or any of its representative. The Project includes the cost for monitoring, evaluation, non-federal audit and payment verification reviews under the technical assistance line item.

## 5. MONITORING AND EVALUATION PLAN

### 5.1. Introduction

The ACE Project monitoring and evaluation (M&E) plan is designed to provide information for three purposes:

1. Monitoring project inputs and outputs;
2. Monitoring the Project's and implementing agents' performance and compliance with the terms of the ACE Grant Agreement; and
3. Evaluating project impact.

The plan includes specifications for project input and output indicators and purpose-level impact indicators, and identifies data sources for M&E information. The plan is designed to minimize the management burden for both USAID and ICICI while still providing the necessary and sufficient information for M&E of the Project. During the course of project implementation, M&E-supplied information will help the implementing agents to identify problems and make improvements as necessary. The M&E plan will be refined by the ACE Group, with assistance of the institutional contractor, at the end of the first year of the project.

### 5.2. ACE Project Input and Output Indicators

Input Indicators: Input indicators are the dollar amounts expended for each activity, and demonstrate the degree to which project resources are being expended. The total amount budgeted for each activity is as follows:

<u>ACE Activity</u>	<u>Input Indicator (Total Value/Cost)</u>	<u>Target*</u> (\$ 000s)
Loans	Loans	20,000
Technical Assistance (Total = 6,015)	TA to private firms	2,962
	Other TA (ICICI, trade association)	1,255
	T&I tours	529
	Monitoring, evaluation, non-federal audit, financial reviews	200
	Core cost, institutional contractor	1,002
Grant to trade asso.	Grant to trade asso.	570
Support to ICICI (Total = 916)	Feasibility studies	264
	ST US training	122
	Promotional expenses	530

\* The target input amount is the total amount budgeted for the activity.

**Output Indicators:** The Project is designed to support private sector projects in areas of critical deficiency in India's agribusiness system. These areas include post-harvest handling, packing and packaging, cold transport and storage, aseptic processing, and marketing. The Project will monitor the total number of projects and the specific types of activities supported by ACE. Often several project activities will be conducted in a single agribusiness subsector. For example, ACE is likely to provide loans, TA, and possibly trade and investment tours to firms in the mango processing business.

The ACE M&E system will collect two types of output data. The first type is information on direct outputs of ACE activities: loans, TA, studies, etc. These outputs are specified as follows:

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<u>ACE Activity</u>	<u>Output Indicator</u>	<u>Target (Total)</u>
Loans	(same as input indicator)	
Technical Assistance		
TA to private firms	# person-months per year	
Other TA	# person-months per year	
T&I tours	T&I tours per year	
Grant to trade association	(same as input indicator)	
Support to ICICI		
Feasibility studies	# studies per year	
ST US Training	# person-weeks of US training	

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The second type of output indicator concerns the numbers and types of private agribusiness projects supported by the Project. For each ACE activity, the ACE Group will collect the following information from clients:

1. The type of business;
2. A brief description of the technology used;
3. The location of the project;
4. The products to be handled; and
5. The target markets for these products.

### 5.3. ACE Project Impact Indicators

The purpose of the ACE Project is to promote post-farm private sector industries in horticulture. It is clear that public sector post-farm agribusinesses are not effective in building the linkages needed for sustainable rapid growth of India's horticultural industries. ACE will support activities in post-harvest handling, packing and packaging, transport, cold storage, processing and marketing. The main indicators for the establishment of private post-farm industries are the number and quality (financial viability, types of technology, and markets reached) of private post-farm agribusinesses assisted directly and indirectly by the project. This aggregate measure should include "copy cat" projects that replicate agribusiness projects supported by ACE.

There will be three types of impact indicators: (1) growth of agribusiness projects supported by ACE; (2) growth of output and sales in key subsectors, including horticultural production, processed products, and export realization; and (3) evidence of "copy cat" projects.

Indicators for Promotion of Private Agribusinesses The indicators described here measure the growth of private agribusiness in key post-farm subsectors. No indicators are proposed for policy reforms or infrastructure resulting directly or indirectly from the Project. There are two reasons why the M&E plan focuses on the growth of private firms and does not monitor changes in policies or infrastructure.

First, the growth of private firms is an excellent proxy for improvements in the general environment for agribusiness. As infrastructure, policies, and services for agribusiness improve, private firms grow. Second, it is simply more pragmatic to monitor the growth of private firms.

The first indicator aggregates all private agribusiness projects supported by the Project. Via this monitoring, the ACE Group will be able to summarize agribusiness clients by the type of assistance received, the subsectors in which the projects operate, etc. Indicators of the direct impact of the Project will include:

- (1) Total number of agribusiness projects assisted in post-harvest handling, packing and packaging, transport, cold storage, processing and marketing;
- (2) Total assets invested in these projects;
- (3) Number of projects assisted in key deficiency areas in India's post-farm agribusiness system, i.e., cold transport, cold container handling, modified atmosphere packaging material use, field chilling equipment use, international produce trading, aseptic packaging materials and processes, packing houses using chilling and paletization equipment, and air cargo handling;

- (4) Total assets invested in these projects; and
- (5) For sustainability of ACE-supported projects - annual gross revenues, annual net income (due to confidentiality restrictions income data may not always be available), annual capacity utilization, and annual tonnage of produce handled.

Indicators for Development of Priority Subsectors: These indicators reflect changes in several key capital goods industries that provide equipment for post-farm agribusiness and will therefore measure larger trends in the development of post-farm industries in priority areas. They will include:

- (1) Gross sales (national and State of Maharashtra):
  - i) Modern grading, washing, and sorting equipment;
  - ii) Specialty packing and packaging equipment, such as laminated packs, modified atmosphere containers and packages, kraftpaper packages, tetrapacks, and bulk liquid containers;
  - iii) Field chilling equipment;
  - iv) Cold transport equipment, including refrigerated containers; and
  - v) Selected processing equipment, e.g., aseptic processing equipment.
- (2) Horticultural production in Maharashtra.
- (3) Processing volumes in Maharashtra.
- (4) Export sales in Maharashtra.

Indicators (2), (3), and (4) are not directly correlated with the Project.

Indicators of Project Replication in Priority Subsectors: This impact indicator estimates the numbers and types of projects that replicate ACE-assisted agribusiness projects. Information regarding replication projects will be collected through periodic evaluations. The indicators listed above for development of priority subsectors will also be the indicators for project replication.

Lending by DFIs to the Horticultural Sector: This indicator is a good measure of investment taking place in the sector.

#### 5.4. Data Sources

There are six basic sources of information for monitoring and evaluating the Project:

ACE Group Financial Monitoring Reports: Financial inputs and direct project outputs (loans, TA, studies, etc.) can be collected through routine ACE Group monitoring records and will need to be prepared and submitted by the ACE Group to ICICI management and to USAID on a semi-annual basis.

When ACE services are provided to a new beneficiary, the firm will be required to provide baseline data about the project. This will include the following:

- (1) Type of project;
- (2) Location of the project;
- (3) Products to be handled;
- (4) Annual throughput (for processing, packing and transport);
- (5) Capacity utilization rate;
- (6) Brief description of technologies in use and/or proposed;
- (7) Target markets for the products;
- (8) Total employment (male and female);
- (9) Total assets;
- (10) Gross revenues;
- (11) Net income; and
- (12) Project cost (total capitalization).

ACE Group Output Monitoring Records: See section 5.2.2.

Annual Performance Reports from ACE Clients: Firms receiving ACE assistance will be required to update the information originally provided to the ACE Group on an annual basis. This information will be treated with the same confidentiality standards as are ICICI's usual loan accounts.

Annual Sample Surveys by ACE Group Staff: It will also be necessary to collect data from firms after completion of ACE assistance. It is generally difficult to collect valid data from private firms that have "graduated" from donor-funded projects because private firms are often sensitive about providing financial or operational information to non-shareholders.

To collect data from these firms, a stratified non-random sample of former recipients will be interviewed annually by ACE Group staff. This data will be used for evaluations on an as-needed basis. Recent experience with the AID/PRE loan guarantee facility indicates that a ten to 15 percent sample of all firms that have received ACE assistance will be sufficient to draw conclusions about project impacts. Information that will be collected from these former ACE beneficiaries will be the same as collected during the assistance period, with the following additions:

- \* Current technologies used; and
- \* Current markets targeted.

These data will be collected annually from a sample of former beneficiaries via personal or mail interviews by ACE Group officers.

Business performance data from ongoing ACE beneficiaries plus the annual data from a sample of former recipients will provide information on project impacts for evaluation purposes.

State and National Industrial and Agricultural Statistics:

- (1) Nationwide gross sales of the following:
  - (i) Modern grading, washing, and sorting equipment;
  - (ii) Specialty packing and packaging equipment;
  - (iii) Field chilling equipment;
  - (iv) Cold transport equipment, including refrigerated containers; and
  - (v) Selected processing equipment, to be determined.
- (2) Horticultural production volumes for selected products in Maharashtra:
  - (i) Mangos;
  - (ii) Grapes;
  - (iii) Cut flowers; and
  - (iv) Selected fruits and vegetables to be selected at start of project.
- (3) Horticultural processing volumes for selected products in Maharashtra.

**Other Information That Must Be Collected Through Annual Sample**

**Surveys:** Information on replication of ACE-supported agribusiness projects in priority areas will be collected through annual surveys conducted by ACE Group staff. This information should be collected through qualitative interviews with a stratified, non-random sample of key informants in the priority subsectors. Interviews with key informants will include:

- (1) Discussion of agribusiness projects that have been modeled after ACE-supported projects;
- (2) Identification of new technologies used and new markets served; and
- (3) Estimation of the scale of these "copy cat" projects.

**Midterm Evaluation:** Approximately three years after project signing (and approximately two years after the approval of the first loan/TA applications), sufficient data will exist to assess the performance of the Project. The objective of this evaluation will be to identify the cost-effectiveness and sustainability of individual activities and to recommend midterm corrections. Approximately four person-months of short-term technical assistance will be needed to carry out the midterm evaluation. Together, ICICI and USAID will develop terms of reference for the evaluation and select the team. USAID will directly contract for the team.

This evaluation will include examination of the number and types of firms served by the project and the performance of these firms, and the application of the policy studies, trade and investment tours, and training activities. It will also estimate growth of key post-farm agribusiness activities, and replication of ACE-supported private agribusiness projects.

**Final Evaluation:** A final impact evaluation will be conducted at the end of the seventh project year. It will assess the effectiveness of each project activity and their impacts on private sector post-farm agribusinesses.

Five person-months of short-term TA will be required to carry out a thorough final evaluation of the project. Like the mid-term evaluation, the final evaluation will be jointly planned by ICICI and USAID, and contracting for the evaluation team will be directly by USAID.

## 6. SUMMARIES OF ANALYSES

### 6.1. Technical Analysis

India is the world's second largest vegetable producer (12 percent of world supply) and the third largest fruit producer (eight percent of world supply). However, to date, the export potential for fruits and vegetables has not been exploited. The horticultural industry is hampered by many constraints, including outmoded technology, lack of infrastructure, limited and costly transportation, a heavy fiscal burden, restrictive regulations, and domestic competition for fresh produce.

Maharashtra, the state chosen for initial ACE implementation, is predominantly rural, with agricultural workers comprising 64 percent of the total work force. Maharashtra is India's largest banana producer and second largest grape producer. Its infrastructure development is generally as good as, or in some cases better than, that found elsewhere in India. The systems model for the development of a viable fresh fruit and vegetable export operation in Maharashtra will include farmers, packers, and exporters. The farmer will benefit from a guaranteed market for his product at a pre-determined price. In turn, he must commit a designated area of his land exclusively to export production. The packer is obligated to accept all the farmers' products which meets standards, without consideration to the current market price. In turn, he has the authority to reject a product which does not meet quality standards. The exporter is empowered to reject packaged products which fail to meet quality standards, but he is obligated to accept all products which do. The exporter provides overall direction, coordination, control and logistics for the harvest, packaging, inland transportation, cooling, export, and sale of the product, and has the final say in the selection of the product variety.

There are many difficulties inherent in fruit and vegetable processing, not least of which is perishability. Processing must occur within hours of harvest. Maharashtra has the best-known manufacturing facilities for fruit and vegetable processing equipment. However, technologies which add value and/or quality to processed products, such as freeze-drying, often require trained manpower, raw materials, and infrastructure which are unavailable. In addition, import restrictions often limit access to these technologies. An important function of the technical assistance provided by ACE to agribusiness firms will be to identify new technologies which will make these firms more competitive but at the same time take into account local conditions.

The magnitude of the ACE Project goal -- to strengthen private agribusiness in Maharashtra -- requires concentrating effort on the development of integrated agribusiness systems. ACE will focus only on post-farm activities. Based on an initial analysis, the most logical candidate for a pilot program is the grape export agro-industry. The successful development of this pilot agro-industry will provide a model for the development of others.

## 6.2. Administrative Analysis

The Industrial Credit and Investment Corporation of India Limited (ICICI) will be the principal implementing agency for the Project. ICICI was established in 1955 to promote industrial development by providing financial assistance to industrial enterprises, primarily private firms. Because of ICICI's broad range of corporate capabilities, its excellent management, and its sound reputation in international financial markets as a creditworthy borrower, it is very likely that ICICI will be able to successfully implement the full range of Project activities. ICICI's effective working relationship with the government makes it likely that selected innovations in agribusiness arising from the Project will be introduced to government financial institutions. ICICI has successfully executed its responsibilities under three USAID projects - PACT, PACER, and CTD - thus proving its ability to carry out technical assistance, investment and technology promotion, and institution-building activities.

The Mahratta Chamber of Commerce and Industry (MCCI) was established in 1934 as the apex representative body for trade, commerce and industry in Western Maharashtra. Under a subgrant from ICICI, MCCI will be responsible for promotion of the Project, referring potential ACE beneficiaries to the ICICI ACE Group, establishing agribusiness support services, and implementing the policy studies activities of the project - all activities which MCCI currently carries out. MCCI has a reputation for being one of India's strongest trade associations, and it is the first major regional trade association to give full representation to agribusiness. MCCI senior management staff are enthusiastic about cooperating with the Project, including all trade association activities.

The administrative burden on USAID should be relatively light. Virtually all implementation will be the responsibility of the ICICI ACE Group, assisted by an institutional contractor. ICICI will be responsible for technical and logistical aspects; USAID will be responsible for monitoring and will administer financial aspects of the institutional contract. There will be no direct government involvement; however, it is expected that the government will be represented on the ACE Advisory Council to provide guidance and to serve as a forum for discussion.

### 6.3. Financial Analysis

The loan component of the ACE Project constitutes 50 percent of the project cost. It will provide \$10 million for loans through ICICI to approximately 25 private agribusinesses (assuming an average loan size of \$400,000). ACE loans will be made under the usual terms and conditions for ICICI loans to comparable clients. For the purposes of this analysis, it is anticipated that ICICI will lend at DFI rates, i.e., 16.5 percent p.a. The maximum loan will be \$750,000, and the average term will be five years.

All interest and principal reflows from ACE loans will be reloaned under the same conditions governing the initial \$10 million. During LOP, this fund will earn approximately \$4.5 million in interest, and \$1.1 million from reinvestment of principal and interest reflows. ICICI's overall loan loss rate is estimated by USAID to be 2.8 percent of total outstanding loans; ACE loans will be expected to have the same loss rate. The amount to be loaned will have a present value of \$10.3 million and an actual value of \$20.2 million by the end of year 13 (when 97.2 percent of principal reflows on AID-funded loans will have been recovered).

### 6.4. Economic Analysis

Project activities have been divided into two broad categories for this analysis: (1) loans (\$10 million), technical assistance to private firms (\$2.962 million), and trade and investment tours (\$529,000); and (2) ICICI institutional strengthening in agribusiness lending (\$916,000) and a grant to MCCI for institutional strengthening in agribusiness, and for policy studies (\$570,000).

Loans will go to financially sustainable projects with prospects for substantial economic benefits through increased value added and employment, and for high impact on the development of post-farm agribusiness services. It is estimated that there will be a severalfold incremental investment in agribusiness induced by the \$10 million in loans, and that about 1,400 jobs will be generated.

TA will be provided to about 100 firms to support financially viable projects that significantly increase the value added in the agricultural sector. With assistance of about \$500,000 per year, TA will assist in the generation of returns of \$16 million over the life of project (at a 50 percent rate of return).

The second category of activities should also have high economic returns, though we do not attempt to quantify these benefits.

### 6.5. Social Soundness Analysis

The Government of India (GOI) has been focusing attention on agribusiness development, especially on the food processing industry. The Project addresses the GOI's concern about the high volume of fresh food that is wasted each year due to seasonal abundance and the lack of organized marketing. Success of the Project will generate employment and improve skills in the food processing industry.

Private sector companies will be the main participants in the Project. Approximately 25 firms will receive commercial loans; at least 100 units will receive technical assistance. This number represents less than 50 percent of existing units in Maharashtra; however, many small units will be indirectly benefitted if linked to big processors. There is some possibility that ACE services, although needed by processors, may not be requested because of perceived risks of using new technologies or of targeting new markets. New businesses directly linked to agribusiness, such as packaging units, may be difficult to start; however, they will create the climate of change necessary for an improved agribusiness industry.

Communication among potential project participants and the spread of new technology are complicated by the "cultural distance" between project participants and implementors. These problems will require ICICI to develop a careful strategy for communication, including promotional literature and brochures clearly stating the objectives of ACE, and describing the logic behind the project. Local business leaders will be identified as their support is often crucial to the achievement of spread effects.

Factors that will affect social impact include the following: choice of commodities (the focus will be on horticultural crops); seasonality of crops; development of the packing industry (which will require more labor); environmental concerns (which will be included among the ACE Group's criteria for reviewing proposals); and female labor.

Despite the fact that more than 70 percent of the labor employed in agroprocessing is female, there are few women in managerial roles. ACE is not aimed specifically at women in development. However, as it deals with a sector that employs a great number of women, it will inevitably have a significant, positive impact on the employment opportunities and incomes of women workers.

### 6.6. Environmental Analysis

According to AID's Environmental Procedures, ACE is categorically excluded from an Initial Environmental Examination, Environmental Assessment, or Environmental Impact Statement. However, both USAID and ICICI are committed to the inclusion of environmental criteria for the agribusiness activities under ACE. ICICI can and does turn down loans on environmental grounds, based on an evaluation of environmental concerns and how they are being addressed. Environmental considerations will be an explicit criterion for ACE-funded loans. Although USAID will not have the right of loan review or approval, the Mission is assured that environmental considerations will be integral to the process.

## 7. CONDITIONS AND COVENANTS

The Project Grant Agreement will contain the following conditions precedent and covenants.

### 7.1. Conditions Precedent to Disbursement

7.1.1 First Disbursement. Prior to the first disbursement under the Grant, or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made, the Grantee will, except as the Parties may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D. the following:

- (a) an opinion of counsel acceptable to A.I.D. that the Project Grant Agreement has been duly authorized and/or ratified by and executed on behalf of the Government of India and that it constitutes a valid and legally binding obligation of the Government of India in accordance with all of its terms;
- (b) a statement of the name(s) of the person(s) holding or acting in the office(s) of the Grantee specified in Section 8.2 of the Project Grant Agreement, and of any additional representatives, together with a specimen signature of each person specified in such statement; and
- (c) a letter from ICICI that it has created an ACE Group for managing the project, headed by an officer at the level of Manager or higher and staffed by at least two other officers, plus such other personnel considered necessary to implement project activities.

7.1.2 Additional Disbursement. Prior to disbursement under the Grant, or to issuance by A.I.D. of documentation pursuant to which disbursement will be made, to finance loans, ICICI will, except as the Parties may otherwise agree in writing, furnish to A.I.D., for its approval, a description of the lending terms, criteria and procedures for the review and approval of loans to be provided under the Project to private agribusiness firms. Such description would include the guidelines governing ICICI's retention of reflows (i.e., repayments of principal and/or interest) from loans and contributions by recipients of project assistance. Such criteria and procedures shall seek, inter alia, to minimize the adverse potential environmental impact of any resources made available under the Project to private agribusiness firms.

## 7.2 Special Covenants

7.2.1 ACE Advisory Council. Within six (6) months of the date of the Project Grant Agreement, ICICI shall create and maintain in operation for the life of the Project, an ACE Advisory Council chaired by ICICI, to provide overall guidance to the project. The operational procedures for the ACE Advisory Council will be finalized by ICICI in consultation with A.I.D. The membership of the Advisory Council will be comprised of representatives as specified in Annex 1, Amplified Project Description of the Project Grant Agreement.

7.2.2 Training. ICICI shall make all training under the Project available to its personnel without any discrimination on the basis of gender.

7.2.3 Post-Training Agreement. The Grantee shall make every effort to require that each person trained under the Project shall work in activities related to the Project or in activities approved for financing under the Project, in India, for not less than three times the length of his or her training.

7.2.4 Evaluations. Within eighteen (18) months of the date of the Project Grant Agreement, ICICI and A.I.D. will establish a monitoring and evaluation program which will be financed as part of the Project. Except as the Parties may otherwise agree in writing, this program will include an in-depth mid-term evaluation and a final evaluation at the end of the Project. The monitoring and evaluation program will include:

- (a) An evaluation of progress towards attainment of the objectives of the Project;
- (b) Identification and evaluation of problem areas or constraints which may inhibit such attainment;
- (c) Assessment of how such information may be used to help overcome such problems or constraints; and
- (d) Evaluation, to the degree feasible, of the overall development impact of the Project.

**7.2.5 Segregated Account for Reflows; Utilization Upon Project Completion/Termination.**

- (a) The Grantee agrees that all reflows (i.e., repayments of principal and/or interest) from loans financed under the Project shall be deposited and maintained by ICICI in a segregated account and not commingled with other assets of ICICI. All funds in said account shall be used for the purposes of the Grant as set forth in the Project Grant Agreement or in Project Implementation Letters issued pursuant to the Project Grant Agreement. It is the understanding of the Parties that ICICI neither has nor shall obtain any present or future beneficial interest, whatsoever, in either the Grant or the reflows, other than for reimbursement of allowable expenses incurred by ICICI under the Grant.
- (b) After completion of the Project or upon the termination of the Project Grant Agreement by either Party, A.I.D. and the Grantee shall confer and agree in writing to the utilization thereafter of all funds in said account in a manner consistent with the purposes and objectives of the Project. The requirement set forth herein is in addition to and neither replaces nor modifies any other provision of the Project Grant Agreement.

**7.2.6 Technical Assistance.** Prior to the first allocation of project funds for technical assistance to private sector organizations, ICICI will develop general criteria and procedures for the review and approval of technical assistance in consultation with A.I.D. These criteria and procedures shall also specify the contribution by the private recipients toward the costs of such technical assistance.

**7.2.7 Reporting of Grantee's Project Contribution.** The Grantee agrees to furnish to A.I.D. in writing, annually during the life of the Project, a report of the Grantee's contribution (in cash and in kind) which is provided pursuant to Section 3.2 of the Project Grant Agreement. The format and content of such report will be specified in a Project Implementation Letter.

# ANNEXURES

ACTION: AID-3 INFC AMF ECM FCL ECON SCI FAS FCS ---- (9)

ANNEX A

VZCZCNIC450  
PP RUEHNE  
DE RUEHC #0542 0302231  
ZNR UUUUU ZZH  
P 302233Z JAN 91  
FM SECSTATE WASHDC  
TC AMIMEASSY NEW DELHI PRIORITY 1764  
BT  
UNCLAS STATE 030542

31-JAN-91 TOR: 22:39  
CN: 52063  
CHRG: AID  
DIST: AID  
ADD:

Proj. JB6-0521

AILAC

E.C. 12356: N/A  
TAGS:  
SUBJECT: PID APPROVAL AUTHORITY

1. AA/APRE HEREBY DELEGATES PID APPROVAL AUTHORITY FOR THE AGRICULTURE COMMERCIALIZATION AND ENTERPRISE PROJECT (386-0521) TO THE DIRECTOR, USAID/INDIA.

2. IF PLANNED LOP FUNDING LEVEL OF DOLS. 15.0 MILLION OR THE FY 91 OBLIGATION OF DOLS. 2.0 MILLION INCREASE DURING THE COURSE OF THE DESIGN, PLEASE CABLE APRE/FPM AND APRE/ER/PE REQUESTING BUREAU CONCURRENCE PRIOR TO AUTHORIZATION. PER ECA 652, YOU HAVE THE AUTHORITY TO APPROVE THE PP AND AUTHCRIZE THIS PROJECT.

3. PRIOR TO AUTHCRIZING THE PROJECT, TWO APPROVALS/REVIEWS ARE REQUIRED FROM APRE:

(A) AN IEE SHOULD BE SUBMITTED TO THE BUREAU'S ENVIRONMENTAL OFFICER, M. KUX, APRE/DR/TR. IN ORDER TO REVIEW THE IEE AND MAKE A DECISION REGARDING THE RECOMMENDED ENVIRONMENTAL THRESHOLD DECISION, PLEASE SUBMIT A COPY OF THE PID ALONG WITH THE IEE;

(B) AN AID/W REVIEW OF POTENTIAL INTELLECTUAL PROPERTY RIGHTS (IPR) CONCERNS MUST BE CONDUCTED. AS THE PROJECT DESIGN PROCEEDS, THE NATURE OF THE PROJECT WILL DETERMINE THE POTENTIAL IPR CONTENT AND THE ROLES OF THE PUBLIC AND PRIVATE SECTOR. PLEASE SEND K. A. JONES, APRE/DR/TR, INFORMATION AS THE PROJECT CONTENT EVOLVES IN ORDER THAT SHE MAY ASSIST THE MISSION IN ADDRESSING POSSIBLE IPR ISSUES.

4. PLEASE SEND A COPY OF THE APPROVED PID TO APRE/DR/PD FOR FILING AND DISTRIBUTION. PE WILL ORGANIZE A STAFF-LEVEL REVIEW WITH THE AIM OF PROVIDING GUIDANCE FOR THE PP DESIGN EFFORT. IF THE MISSION HAS SPECIFIC CONCERNS WHICH REQUIRE RESEARCHING AT THIS END, PLEASE LET US KNOW HOW WE CAN HELP. YOU CAN CALL ON US AT ANY POINT IN YOUR DESIGN PROCESS. FINALLY, WE NEED TO KNOW IF AND WHEN YOU WILL NEED DIRECT TDY ASSISTANCE FROM AID/W STAFF. (WE CAN PICK THIS UP IN THE DESIGN STRATEGY SECTION OF THE PID, BUT A SEPARATE CABLE WOULD BE HELPFUL.) BAKER

# 0542

NNNN

01/31/91  
16:00  
ACTION:  
PDPS-3  
INFO:  
AGRE  
RIA  
CO  
CHRON

49

## AGRICULTURAL COMMERCIALIZATION & ENTERPRISE

### LOGICAL FRAMEWORK

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS																					
<p><b>SECTOR GOAL</b></p> <p>To develop a dynamic private agribusiness sector in India</p>	<ul style="list-style-type: none"> <li>o Larger share of agro-industry in industrial value added</li> <li>o Higher quality of processed agricultural goods</li> <li>o Larger share of agricultural goods in exports</li> <li>o Increased employment in agribusiness</li> </ul>	<ul style="list-style-type: none"> <li>o National agricultural statistics</li> <li>o Export documentation</li> <li>o Employment statistics</li> </ul>	<ul style="list-style-type: none"> <li>o Political and economic stability</li> <li>o Continuation of policy liberalization</li> </ul>																					
<p><b>PROJECT PURPOSE</b></p> <p>To improve the investment environment for private agribusiness in horticulture</p>	<ul style="list-style-type: none"> <li>o Growth of agribusiness firms supported by ACE</li> <li>o Growth of output and sales in key subsectors</li> <li>o Project replication in priority subsectors</li> <li>o Increased lending by DFIs to horticultural subsector</li> </ul>	<ul style="list-style-type: none"> <li>o State and national agricultural and industrial statistics</li> <li>o Annual performance reports</li> <li>o Output monitoring records</li> <li>o ACE monitoring reports</li> <li>o Annual sample surveys</li> </ul>	<ul style="list-style-type: none"> <li>o Implementing agency strength continues</li> <li>o Continuing improvement of GOI policies on agribusinesses</li> <li>o Private sector willing to take advantage of opportunities in agribusiness</li> </ul>																					
<p><b>PROJECT OUTPUTS</b></p> <ul style="list-style-type: none"> <li>o Increased investment in agribusiness by private firms</li> <li>o Improved management in agribusiness</li> <li>o Strengthened financial institution support for agribusiness</li> <li>o Strengthened business association</li> <li>o Policy dialogue</li> </ul>	<ul style="list-style-type: none"> <li>o 25 loans received by agribusiness entrepreneurs</li> <li>o 100 private firms assisted with TA</li> <li>o Increased sales of agricultural products and agribusiness equipment/supplies; decreased costs of production/processing in assisted firms</li> <li>o Improved project identification and appraisal capabilities, strengthened monitoring and support, increased lending, increased repayments</li> <li>o Increased services to members</li> <li>o Workshops, policy studies and dialogue</li> <li>o 8 policy studies, workshops</li> </ul>	<ul style="list-style-type: none"> <li>o ACE monitoring reports</li> <li>o Annual sample surveys</li> <li>o ACE monitoring reports</li> <li>o Business performance data</li> <li>o Implementing agency records</li> <li>o Business performance data</li> <li>o Annual performance reports</li> <li>o ACE records</li> </ul>	<ul style="list-style-type: none"> <li>o Private sector willing to submit proposals, take risks</li> <li>o Infrastructure improvements continue</li> <li>o Financial Institution will be ready to improve procedures if necessary</li> <li>o Business association wants to improve its programs; willing to share costs.</li> <li>o Climate conducive for policy dialogue</li> </ul>																					
<p><b>PROJECT INPUTS</b> (\$ millions)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">USAID</th> <th style="text-align: center;">GOI</th> </tr> </thead> <tbody> <tr> <td>o Loans</td> <td style="text-align: center;">10.00</td> <td style="text-align: center;">10.00</td> </tr> <tr> <td>o TA</td> <td style="text-align: center;">5.95</td> <td style="text-align: center;">0.00</td> </tr> <tr> <td>o Grant to MCCI</td> <td style="text-align: center;">0.57</td> <td style="text-align: center;">0.00</td> </tr> <tr> <td>o Support to ICICI</td> <td style="text-align: center;">0.92</td> <td style="text-align: center;">0.00</td> </tr> <tr> <td>o Contingency</td> <td style="text-align: center;">1.53</td> <td style="text-align: center;">0.90</td> </tr> <tr> <td>o Inflation</td> <td style="text-align: center;">1.04</td> <td style="text-align: center;">0.00</td> </tr> </tbody> </table>		USAID	GOI	o Loans	10.00	10.00	o TA	5.95	0.00	o Grant to MCCI	0.57	0.00	o Support to ICICI	0.92	0.00	o Contingency	1.53	0.90	o Inflation	1.04	0.00		<ul style="list-style-type: none"> <li>o Financial monitoring reports</li> <li>o Output monitoring records</li> </ul>	<ul style="list-style-type: none"> <li>o Timely funding, staffing, procurement by USAID and ICICI</li> </ul>
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DO NO. 2(22)/AID/91



S. VARADACHARY  
Joint Secretary

भारत सरकार :  
वित्त मंत्रालय  
आर्थिक कार्य विभाग  
Government of India (Bharat Sarkar)  
Ministry of Finance (Vitta Mantralaya)  
Department of Economic Affairs (Arthik Karya Vibhag)  
Tel. 3012881

नई दिल्ली/New Delhi . 28th August 19 91

Dear Mr. Bollinger

I am glad to inform you that we agree with the Project Grant Agreement for the Agricultural Commercialisation and Enterprise Project. May I request you to be present to sign the Agreement on 28.8.91 at 4.00 P.M. in Room No. 131-C, North Block, New Delhi as we had agreed upon.

Yours sincerely,

(S. Varadachary)

Mr. Walter G. Bollinger,  
Director,  
USAID,  
New Delhi.

TECHNICAL ANALYSIS

D.1 The Fresh Fruit and Vegetable Situation in India

Introduction

India is the world's second largest vegetable producer (12 percent of world supply) and the third largest fruit producer (8 percent of world supply). Mango is the dominant fruit crop in India, with a reported 1.25 million hectares under production in 1987. The FAO estimated India's mango production to be 9.3 million tons in 1984, approximately two-thirds of the world supply. Despite the vast areas under production, mango groves are generally widely dispersed and are old and poorly managed, resulting in low productivity.

Citrus is the second most important fruit crop in India. Mandarins constitute about 41 percent and sweet orange and limes about 23 percent and 27 percent respectively of the area in citrus. Production in 1987 was a reported 2.25 million tons on an area of approximately 380,000 hectares. The productivity of citrus orchards is generally low because of plant diseases, viruses, insect and pest damage, and poor agricultural practices.

Citrus is followed by bananas in area planted. In 1987, nationwide banana production was reported to be approximately 4.8 million tons from 290,000 hectares. Bananas are generally produced from small farmer holdings under rudimentary growing conditions. Green (unripened) banana stems are trucked to market without benefit of modern packaging.

Tomato and onion are both primary vegetable crops. The total area in tomato cultivation is approximately 100,000 hectares, with average yields of 20-25 metric tons per hectare. Yields are generally low by world standards, primarily as a result of diseases and adverse climatic conditions.

So far, the export potential for fruits and vegetables has not been exploited. Approximately 99.3 percent of India's production of fruits and vegetables is consumed domestically. While world trade in such produce is estimated at US \$23 billion annually, India has been able to garner only US \$107 million, or a mere 0.4 percent share of the world market. In comparison, trading giants like Brazil and Thailand account for US\$ 875 million and US\$ 860 million, respectively.

India exports food products primarily to the Middle East, followed by the Pacific Rim countries, Western Europe, and North America. The five largest importers of Indian food products in 1987-1988, ranked by value of imports, are as follows:

COUNTRY	% OF INDIA'S FOOD EXPORTS
United Arab Emirates	17.22
United States	15.67
Malaysia	9.80
United Kingdom	6.73
Saudi Arabia	5.44

Source: Agricultural and Processed Food Products Export Development Authority (APEDA)

In terms of export value, the most important food products during 1989-90 were the following:

PRODUCT	% OF INDIA'S FOOD EXPORTS
Fresh onions	17.77
Other fresh vegetables	14.90
Guar gum	13.24
Canned fruit	9.28

Source: APEDA

India exports primarily fresh fruits and vegetables, with lesser quantities of processed products exported. Fresh product exports are shipped almost exclusively from Bombay to the Middle East and Gulf States via air cargo, without benefit of refrigeration. Some shipments are also made to Dubai by motorized "country craft," which hug the coastline for the seven-day voyage. ("Country craft" are freighters of an approximate 500-ton capacity without refrigeration which were constructed to serve in intercoastal waterways.) The average daily shipment of fresh products on these vessels is approximately 250 tons. Products shipped include Alphonso mangos and grapes in season, and vegetables on a year-round basis.

### Constraints Faced by the Industry

Outmoded Technology and the Lack of Infrastructure: India produces approximately 75 million tons of fruit and vegetables annually, of which less than two percent is processed. Of the fresh products, an estimated 25-30 percent is lost due to inadequate storing and handling, and to the non-existence of packaging and refrigeration facilities. The lack of cold storage facilities in particular is considered a major impediment to the growth of fresh product exports.

Handling facilities are woefully inadequate. The movement of fresh fruit and vegetable products from farm to market is normally done without benefit of sorting, grading, or packaging. In many cases, field-run produce is packed in field boxes and transported in open trucks to the municipal market, where a semblance of grading is done by hand sorting the product into different piles on a cement floor. Modern facilities are not available for washing, sorting, grading, packing, and palletizing fresh produce so that it can arrive at market in good condition.

The Bombay airport, a major facility for the export of fresh products, is an example. At present, boxes of fresh produce are unloaded from small vans which are parked at the discharge ramp of the air cargo section at the airport. The boxes are stacked onto hand-pulled dollies and then re-stacked for temporary storage inside a warehouse while export procedures take place. After paperwork processing is complete, the product is stacked again onto the dollies and pulled to the loading dock for stuffing into air cargo containers. At no point is the product cooled before being shipped. Fast, reliable, and careful ground handling is vital if customers are to receive their produce in a fresh and unbruised condition for sale at premium air cargo rates. This is currently not feasible at Indian airports.

Limited and Costly Transportation: There is limited availability of commercial trucking, which offers fast insulated transport to ports or airports. In addition, state border delays and octroi increase the cost and uncertainties of trucking.

The present system of exporting perishable products by air makes the shortage of air cargo space a major constraint. The shortage has been made even more severe by Air India's recent change from Boeing 747 aircraft (with a maximum freight lift capacity of 22 tons per trip) to the European Airbus (with a maximum lift capacity of only ten tons per flight). The previous daily capacity for Gulf shipments from the Bombay airport was approximately 100 tons per day; current capacity is only 75 tons per day. There are also other problems. With exports of garments and leather products expanding fast, fresh produce must compete with a host of other

products for limited cargo space. Airlines find fresh products more troublesome and not nearly as remunerative, so little air cargo space is made available to expand produce exports. In addition, the charter business is dominated by Air India. Other airlines are now allowed to operate "extra flights" on their existing routes, but only at the GOI controlled cargo rates. Even on extra flights, airlines find produce rates unattractive.

It might be possible to circumvent the limitations on available air freight by shipping fresh produce to export markets using refrigerated containers on ocean-going vessels. In exploring this alternative, however, it emerged that a number of factors make it prohibitively expensive and generally impractical to move empty containers into the hinterlands of India to transport fresh produce to port. These factors include: a) the lack of inland container handling facilities; b) the overall condition of the highways throughout India; c) the great amount of road traffic; and d) a general shortage of refrigerated containers. It was concluded that refrigerated container service can be assured only at inland locations near a port facility. In addition, the cost of refrigerated container shipments from India by ocean-going vessel appears to be higher than that normally quoted in other parts of the world. To some extent this may be the result of inefficient shipping operations caused by the low volume of refrigerated cargo from Indian ports.

High Fiscal Burden and Restrictive Regulations: While agriculture is a business activity which, under Indian law, enjoys a relatively light tax burden, the services that provide the added value to deliver a suitable product to the final customer fall prey to a wide range of heavy taxes and restrictive regulations. Import duties, excise and sales taxes on imported raw materials and capital goods, the restricted importation of many necessary items, and the administrative burden of complying with bureaucratic procedures for obtaining export licenses combine to make the export business difficult.

As in other product areas, excessive regulation of agribusiness has been a disincentive to investment, particularly foreign investment. It was reported that to start a new food processing operation, a total of 37 clearances were needed. Raw materials are regulated by the Ministry of Agriculture; processing by the Ministry of Food Processing and/or the Ministry of Industry; quality control by the Ministry of Health; and import and export permits by the Ministry of Commerce.

Restrictive regulations and/or duties on inputs for intensive systems of production, such as hybrid seeds, are also prohibitive. Peat is not available in India, but attracts a duty of 150 percent. Fiberglass for greenhouses cannot be imported, although imported special qualities last much longer in sunlight. Imported packaging materials carry high duties. Local alternatives are of variable quality, and they are subject to high excise taxes, not directly refundable on export. Packaging carton is roughly 50 percent more expensive in India than in other locations with fewer restrictions.

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Domestic Competition for Fresh Produce: The pull of a huge domestic demand on wholesale markets represents a continuing problem for Indian exporters of fruits and vegetables. Fixed-price supply contracts with India's small peasant farmers become virtually impossible to enforce when local wholesale prices rise. Until India achieves regular annual exportable surpluses of fresh produce, the attractive export opportunities are likely to be restricted to unfamiliar plants, special hybrid tomatoes for paste not suited for eating fresh, or vegetables such as asparagus and mushrooms, not normally consumed locally.

### Agribusiness in Maharashtra

Maharashtra is predominantly a rural, agricultural state with agricultural workers comprising 64 percent of the total work force. The gross cropped area in Maharashtra approaches 20 million hectares, with about two-thirds of the area farmed in food production. Approximately ten percent of the cropped area is irrigated, primarily by dug wells. The average size holding in Maharashtra is 2.65 hectares. Infrastructure development is generally as good as, or in some cases better than, that found elsewhere in India. Using an index of infrastructure development for all India of 100, the relative development in Maharashtra was 113.

A recent AID survey of private sector agribusinesses engaged in fruit and vegetable production and processing in Maharashtra indicated that the biggest problems faced by investors are the following:

- \* Non-availability and uncertainty of raw material supplies (i.e., farm produce);
- \* Lack of organization of raw materials (farm produce);
- \* Lack of post-harvest management;
- \* Inefficient equipment;
- \* Lack of market information;
- \* Poor quality/non-availability of packaging material;
- \* Lack of GOI support; and
- \* Lack of technical and managerial skills.

The leading agricultural products in the state are mango, banana, citrus, grapes, guava, and papaya in fruits; tomato, beans, cabbage, cauliflower, eggplant, and okra in vegetables; and chilipepper, garlic, ginger, curry, and pepper in spices.

Maharashtra is India's largest producer of bananas (28 percent), second largest grape producer (20 percent), and ninth largest guava producer. Of the annual production of 1.33 million tons of banana, virtually none is processed nor exported as fresh fruit, since the appropriate technology does not exist.

Land in cultivation and annual production of the major crops are shown below:

	<u>Area in Cultivation</u>		<u>Annual Production</u>	
	<u>Maharashtra</u>	<u>India</u>	<u>Maharashtra</u>	<u>India</u>
	(000 ha)		(000 mt)	
Mango	14.0	1232.9	90.0	10350.4
Banana	52.8	289.6	1334.7	4767.1
Citrus	26.9	382.8	144.2	2250.1
Grapes	4.5	15.4	49.2	251.0
Guava	0.5	176.9	14.8	1112.6

Source: APEDA

The state government is actively encouraging and promoting the development of horticulture crops, and has developed plans for roughly doubling the current production levels of fruits and vegetables by the year 2000.

#### Development of a Program for Fruit and Vegetable Exports From Maharashtra

The following is the recommended framework for development of a viable fresh fruit and vegetable export operation from Maharashtra. The approach considers the complex chain of events which must take place throughout the industry in order to bring about a successful fresh produce export operation. It also takes into account the constraints which currently exist in India. The system to be put into place is defined in terms of the participants and the linkages among participants.

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In the export systems model, it is expected that the small farmer will deal with a packer. The farmer will benefit from a guaranteed market for his product at a pre-determined price. Thus, the marketing uncertainty is removed. However, the farmer is "at risk" in case of crop failure or poor crop quality. The farmer will work on the basis of a crop contract which obligates him to supply product exclusively to the packer from a designated area, regardless of fluctuations in the local market. This requires the farmer to commit a designated area exclusively to export production, where specified product varieties are grown and the required agricultural practices are followed. The agreed-upon area will be under the authority of the packer for certain critical conditions such as plant varieties and timing of harvest.

The packer is a service organization, and must be located as closely as possible to the farming community he serves. The packer provides farm inputs to the grower, such as seed, fertilizer, and chemicals, and he also provides technical assistance to the farmer with regard to crop varieties, agricultural practices, harvest timing, and market information. The packer must have the authority to reject a product delivered by the farmer which does not meet quality standards. Conversely, the packer is obligated to accept all the farmer's product which meets standards, without consideration to the current market price of the product. The interests of the farmer and the packer are closely aligned since the packer provides a service the farmer requires, and the economic well-being of the packer derives from the farmer's success in producing large volumes of export-quality fresh fruits and vegetables.

The packer owns the packaging and storage facility, and works on the basis of a per-box fee. The farmer delivers fresh produce to the packer in returnable field boxes. The product must be harvested in accordance with product quality specifications and on a schedule dictated by the packer. The farmer's product is inspected, cleaned, graded, selected, and packed into cardboard boxes (or other appropriate containers) by the packer. Culls are separated from export quality product and sold to local markets. (A local market for the product may exist which will permit the processing of the culls, or the sale of culls as a fresh product.) The packer maintains records and establishes an information system (i.e., encoded boxes) which can be used to identify each farmer's product, in case of quality problems or if for any reason it becomes necessary to identify the origin of the product.

After cleaning, grading, and selecting, the product is packed into export boxes, palletized, and banded to form a unitized lot of product which typically might contain up to 50 boxes with a gross weight of one ton. Once the banded, palletized, and unitized lot of product is formed it should not be broken apart until it reaches the customer's warehouse. This simple technique avoids multiple handlings of single boxes and thereby minimizes handling damage which can be devastating to product quality.

Ideally the palletized and banded product should be pre-cooled and refrigerated immediately after packaging. However, the limited supply of refrigerated containers and the high cost of moving empty containers into the hinterlands of India makes it necessary that the palletized product be transported by conventional means to a location near the port of export for pre-cooling and refrigerated storage. While this delay in cooling is not ideal, as long as the product can be packed, stored under shade, and transported to the pre-cooling facility within 24 hours after harvest, the time is within the margin of acceptability for most fresh produce. This is a reasonable compromise which recognizes the current reality of cooling and transportation services in India.

The packer can, and should, deal with more than one farmers' cooperative. This will provide both geographic and product diversification, and will extend the use of the packing facility to cover several different crops and crop seasons.

The packer is the service link between both the farmers' cooperative and the exporter. The packer's responsibility for the product ends when palletized lots of fresh produce are loaded onto the exporter's truck at the packer's loading dock. The exporter is empowered to reject packaged product which fails to meet quality standards, but he is obligated to accept all product which does meet standards. The exporter is also responsible for selecting, testing, and purchasing packaging material, supplies, and pallets, and arranging for delivery of this material to the packer for storage and later use. The packer is accountable to the exporter for the inventory of packaging items. It is also the responsibility of the exporter to arrange for transportation of product from the packer to the commercial cooling facility.

The exporter's product is delivered by conventional transport to the commercial cooling facility, located near the port of export. Similar to the packer, the commercial cooling facility is a service provided on a fee per unit basis (per box, ton, etc.). The commercial cooling facility can and should deal with more than one exporter as a means of diversifying the customer and product base, therefore ensuring a more viable business.

Services provided by the cooling facility are listed below:

- \* Receives palletized, uncooled product at the loading dock;
- \* Pre-cools and provides refrigerated storage for the exporter's product;
- \* Re-packs the product if necessary, in case of handling damage;
- \* Performs product rotation and controls product inventory;

- \* Maintains information on temperature recordings and product quality;
- \* Receives empty refrigerated containers on behalf of the exporter, and loads the cooled product into containers as scheduled by the exporter;
- \* Installs temperature recording devices in the refrigerated containers; and
- \* Arranges for moving the loaded containers to the port of export, under the instructions of the exporter.

The cooling facility provides services to the exporter only. He has no commercial relationship with any of the other participants in the export system.

The exporter is a key participant in the export system. He provides overall direction, coordination, control, and logistics for the harvest, packaging, inland transportation, cooling, export, and sale of the product. He establishes product specifications and packing standards, in addition to packaging material usage criteria and quality standards. He has the final say in the selection of the product variety.

He provides technical assistance to both the packer and the farmer for product grading, selection, packing and the use of packaging materials, and the criteria for product quality standards. The exporter also provides information regarding product quality and export market conditions to both the packer and the farmer's cooperative.

He purchases packaging material and supplies, pallets, and materials for product treatment or preservation and makes these available to the packer. He purchases the product from the farmers' cooperative at the packing station. He has the right to refuse purchase of inferior quality product but he is obligated to purchase all the product which meets quality standards.

The exporter arranges/provides for:

- \* Inland transportation of product;
- \* Delivery of packing materials;
- \* Commercial cooling services;
- \* Refrigerated containers and sea freight;
- \* Export documentation and legalities;
- \* Chemical residue testing and product pre-clearance; and
- \* Product sales and marketing.

### Potential Markets to be Considered

Based on a preliminary analysis of geographic proximity to India, the history of Indian exports, and a general knowledge of market demand in these areas, the countries listed below should be considered in developing the fresh products export system. In addition to foreign markets, the Indian domestic market should be reviewed for potential demand for high-quality packaged and cooled fruits and vegetables.

- |                            |              |
|----------------------------|--------------|
| 1. India (domestic)        | 4. Japan     |
| 2. Middle East/Gulf States | 5. Singapore |
| 3. Western Europe          | 6. Hong Kong |

### Potential Fresh Products to be Considered For Export

Based on the production history of Maharashtra, the history of fresh product exports from India, and a general knowledge of demand in potential markets, the following list of fresh products should be considered for export:

#### Fresh fruit:

- |           |                |
|-----------|----------------|
| a. mango  | f. pomegranate |
| b. grapes | g. sapote      |
| c. papaya | h. figs        |
| d. melons |                |
| e. guava  |                |

#### Fresh vegetables:

- |                      |                 |
|----------------------|-----------------|
| a. hot pepper        | f. cucumbers    |
| b. tomatoes          | g. squash       |
| c. okra              | h. string beans |
| d. bell peppers      | i. eggplants    |
| e. "ethnic" products | j. mushrooms    |
|                      | k. asparagus    |

#### Flowers and foliage:

- |              |                                  |
|--------------|----------------------------------|
| a. heliconia | d. orchids                       |
| b. anthurium | e. cut foliage                   |
| c. ginger    | f. live plants in growing medium |

#### Other products:

- |                           |                          |
|---------------------------|--------------------------|
| a. hybrid seeds           | c. fresh and dried herbs |
| b. fresh and dried spices |                          |

## D.2 Technical Analysis of Processed Foods Production in Maharashtra

### Basic Relationships

The processor purchases green fruit from farmers in season. The processor accepts the fruit delivered by the farmer, stores and ripens the fruit, and then processes the ripe fruit into pulp. The pulp product is concentrated and packed into bulk aseptic packages for export markets, or held in bulk storage for delivery to a domestic finisher of the product.

The exporter is basically a middleman with access to foreign markets and foreign customers. Given sufficient size, capitalization, and sophistication, the processor can also be the exporter.

The domestic finisher further processes the concentrate into the end product (soft drinks, packaged juice drinks) and distributes the final product through his normal distribution channels.

### Product Characteristics

Fruit pulp is generally a commodity with little, if any, product differentiation from similar types of fruit pulp produced in other locations. Competition in international markets is based on price, consistency of supply, and consistency of product quality. However, it is felt that some degree of differentiation can be made in Indian mango products by careful blending with premium fruit varieties and concerted marketing efforts.

Fruit pulp also enjoys a relatively high domestic demand for processing into drinks, jams and jellies, and specialty products. However, since the pulp-based drinks produced locally are relatively expensive given the limited purchasing power of the average consumer, the domestic demand is not expected to have an accelerated growth rate. Greater opportunities for expansion are seen in export markets and in new product development.

Opportunities are available to develop new products from processed fruit by-products, such as seeds and peel. Flavors, essences, and fermented alcohol are some possibilities.

### Strategy for Development of Fresh Fruit Production in Maharashtra

#### Cost Reduction:

- \* Process the product into greater concentrations in order to save on shipping costs;

- \* Use bulk transportation to reduce packaging and transport costs. For export markets, develop bulk aseptic packaging to replace costly cans;
- \* Develop year-round processing activity by expanding into a wide variety of seasonal fruit. Arrange for processing of perennial fruit or vegetables (guava, tomato) during the off-season; and
- \* Develop an operation of sufficient scale so that per-unit overhead and fixed costs are reduced to competitive levels.

#### Product Differentiation

- \* Develop a range of products unique to India by careful blending of different mango varieties and flavors;
- \* Promote the unique product in international markets; and
- \* Work to develop new products with potentially high demand in both domestic and international markets, such as:
  - Frozen fruit slices;
  - Frozen concentrated juice and juice mixes;
  - Dried or freeze-dried products;
  - Soft drinks;
  - Frozen sorbet;
  - Snack bars; and
  - Fruit by-products

### D.3 Technical Analysis of Food Processing in India

#### Introduction

The following is an analysis of the state of the art in ripening and processing mangos, to include products, packing, quality control, waste management, cost of production, and profitability. It is based on data and information obtained during a fact-finding tour in Maharashtra, Andhra Pradesh and Karnataka in spring 1991.

#### Constraints Inherent in Fruit and Vegetable Processing

The perishability of fruits and vegetables mandates processing within hours of harvest to preserve quality and reduce loss and waste. This requires installation of large capacity lines to handle 10 to 20 tons of fresh produce per hour. The line(s) may operate around the clock for one to three months, then may stand idle until another crop is received.

Commodity crops such as tomatoes are concentrated to reduce water content and to save on shipping cost. Varieties with low soluble solids (below 11 percent) are not desirable because the processor has to remove more water during the concentration operation than in varieties with 16 percent soluble solids. The same applies to mangoes and citrus.

The presence of labile components (polyphenols, terpenes, anthocyanins, etc.) in mangoes and pomegranates, for example, necessitates addition of ascorbic or citric acids to block the oxidation and discoloration/off-flavor that occurs within minutes after cutting the fruit.

Infestations of fruit flies or other insects is costly to the processor because of extra handling and waste.

Small fruits like the Alphonso mango are approximately 45 percent wasted from seed and skin. Fruit varieties that have a high ratio of edible pulp to seed/skin (i.e., 60:40 or better) are preferred. The reverse is true for vegetables: products containing small, tender seeds are preferred (beans, peas, squash).

#### Packaging and Equipment Manufacturers

Flex Graphics and Pouch companies, subsidiaries of Flex Group, manufacture and print flexible laminated pouches for food products. Some of their clients (FPO, and Assam Hills Small Industries Development Corp.) procure and market mango and pineapple beverages in aluminum-laminated pouches for local markets. They also manufacture a line of packaging machines (likely based on Japanese blueprints), and provide and service machines on short-term lease contracts.

The Indian Institute Of Packaging in East Andheri, Bombay, has full service laboratories. It also provides consultation to all sectors and industries. We did not tour the facilities to assess their capabilities. The Institute has publications, and organizes training courses and seminars for technicians in the field of packaging.

Alfa Laval (India) is manufacturing turnkey processing lines for the food industry, such as aseptic packing, concentration and aroma recovery extraction units, coconut and sugarcane processing lines, and cooling units for harvested fruit and vegetables.

Significantly, Maharashtra has the best-known manufacturing facilities for fruit and vegetable processing equipment:

- \* Alfa Laval (India), a Swedish collaboration company located in Pune, undertakes turnkey assignments. Its main products are heat exchangers, concentrators, spray dryers, pasteurizers, SS pumps, tanks, and refrigeration plants;

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- \* Mather and Platt, a UK collaboration company also located in Pune, is mainly known for washing, conveying, and pulping equipment;
- \* Penwalt (Indian) Ltd., originally an American collaboration company located in Bombay, has just undertaken agreements with two Italian companies (Bertuzzi and Roda). They hope to make an entire range of equipment needed to process fruit and vegetables for the consumer market. (This company has received a grant under the PACT project to develop a technology for de-waxing rice bran oil.);
- \* Larsen & Toubro Ltd. of Bombay, one of the largest Indian engineering companies, has a food processing equipment division. They also offer turnkey installations for the fruit and vegetable industry, mainly in collaboration with Danish companies and FMC of the United States; and
- \* Kirlosker Pneumatics Co. Ltd., situated in Pune, specializes in industrial refrigeration machinery and has expertise in refrigerated transport vehicles.

Despite the presence of highly qualified local companies and their collaborators, there is still a sizeable import content, especially in the cases of evaporation equipment, UHT processes, aseptic packing, and freezing systems.

### Plant Locations

State governments have adopted policies to stabilize rural populations in economically depressed districts by offering tax incentives to industrial companies which build processing plants in designated areas. Ready Foods Ltd. in Madanapalle in Andhra Pradesh, a frozen product exporter, is one company taking advantage of tax breaks for locating in remote areas. The same is true of Champayne India Ltd. in Maharashtra.

It is technically and economically sound to build processing plants for perishable fruit and vegetable commodities in the center of crop supply areas. When shipping tariffs are relatively high, as is the case in India, it is less costly to ship concentrated or compacted finished products than raw unprocessed products.

Good roads, water, and power supply are essential to plants located in remote areas; the lack of one or more of these facilities will increase production costs.

The addition of the modern production facility mentioned above will aggravate the excess production capacity in Chittoor district in Andhra Pradesh, and will drive existing small, non-profitable companies with obsolete technology out of business.

### Technical Consideration For Product Improvement

Exotic fruits -- mangos, papayas, guavas, pineapples, pomegranate, etc. -- have sensitive aromas and flavors which may be destroyed or partially lost during processing. These products may be satisfactory for domestic markets, but not for western markets, which are beginning to acquire a taste for exotic fruits without sweetened pulps. Expatriates and other consumers familiar with these fruits prefer to buy them fresh (in season) rather than buy processed pulp.

Aseptic packing of fruit pulp reduces the "cooked" taste that is detected in canned products. Concentrated mango pulp (not reconstituted with aroma condensate) has a "stripped-off" flavor, which is made worse by adding sugar or sweeteners.

Small processors buy cheaper packaging bags to reduce costs, without any pre-testing. One processor ended up with off-flavor mango pulp from packing in flexible bags-in-drum. This processor, among others, expressed his need for technical assistance to avoid such problems, and to find markets for his products.

### Technologies Having Economic and Quality Advantages

The following section briefly discusses technologies that add value and/or quality to existing or new products.

Dehydro-freezing of fruits and vegetables: Dehydro-freezing technology combines the dehydration of freshly prepared produce to remove approximately 50 percent of the water content with freezing to 20 centigrade below zero. The advantages this technology are:

- \* Reduced weight/bulk lowers the cost of packaging, storage, and shipping;
- \* Removal of moisture under vacuum eliminates trapped air/oxygen in the products which oxidizes labile components (polyphenols and terpenes) responsible for discoloration and off-flavors; and
- \* Moisture removal of 50 percent practically eliminates water drip upon thawing the frozen product. Apples, potatoes, and pimentos were produced successfully with this technology.

Dehydration by Osmotic Pressure and Heated Air: Thin slices or shoestring cuttings are dipped in heavy syrup with citric ascorbic acid to increase their soluble solids content to a minimum of 42 percent, then dehydrated (under controlled conditions) to approximately 12 percent moisture. The product is suitable for making all kinds of desserts, ice cream, baked goods, and sweets. Mangos and ripe bananas are good commodities for this technology.

Pectin-gels of mangos, guavas, sapotas, and citrus: Pectin/sugar/acid gels with water acidity (Wa) of 0.75 or lower are made for desserts that may be served with cheese cuts. Gels are preferably made in cooking kettles under vacuum to decrease browning. The products must have an image of quality with appropriate packaging.

Reflux-extraction of spices, tamarind, and flowers: Commodities such as spices, tamarind pods, rose/orange/lime flowers provide extracts of flavor and aroma used by food manufacturers in making all kinds of products, from ice cream to casserole mixes.

Propylene glycol, ethanol, or other food-approved solvents are used to extract flavors from fruit pulp and flower petals. India has the raw materials and equipment, but needs the technology to make satisfactory extracts.

Pocha Seeds (Pvt) Ltd. in Pune, Maharashtra has mastered the technique of plant tissue culture, which, if applied on rose, orange, lime, or other flowers, can provide excellent raw materials for this technology.

Freeze-drying of fruits and vegetables: This technology is used when the structural integrity and texture of the product are crucial to its functional and quality characteristics. It is expensive in terms of equipment and energy requirements. Fruits, vegetables, mushrooms, etc., are cut in slices or small chunks, then quickly frozen to avoid the formation of large ice crystals that tear down the cellular structure, destroying the texture. The frozen pieces are immediately dehydrated under high vacuum (<1.0 mm pressure) so that moisture is sublimated and removed constantly. Normally the vacuum is broken with dry nitrogen gas to saturate the porous product with this inert gas. The dried product normally contains approximately 1.0 percent moisture, and is very hygroscopic.

Freeze-dried products are packed in aluminum pouches laminated with a gas-barrier film, then sealed under nitrogen atmosphere. When packed properly the product has a shelf-life of two years or more. Rehydration is fast with good retention of color and texture. Samples of banana and mushroom from Flex Foods Ltd. were found satisfactory upon a cursory evaluation. The company plans to install a processing plant north of New Delhi (where they can grow mushrooms), that will be equipped with Danish technology. Flex Foods has targeted the German market.

Fermentation of rejected fruits and by-products: Alcoholic and/or acidic fermentation to make vinegar from alcohol is a well-known technology. Rejected and unripe fruit is ripened and combined with over-ripe fruit and other by-products (skins and seeds) to make an extract. The sugar content and pH is adjusted before adding the fermentors, which are packed with inert shavings that carry the yeast or bacteria.

### General Considerations for Fruit and Vegetable Processing

Fruit and vegetable processors link consumers and farm producers. They should listen to consumers demands and relay them to the producers. Competitiveness in the domestic market has not reached the point where consumers have a choice among several brands; they more or less accept what is available.

Major export markets, on the other hand, are very competitive in terms of quality and price. Importers emphasize consistency of quality and reliable and timely deliveries. The processor therefore has to assure his supply of raw materials in advance, and the quality of every lot before shipping.

Below are criteria or actions that would help increase a producer's market share and profitability:

Selection of the best available variety of fruit and vegetables based on the quality of the processed product and approximate analyses of raw materials is priority number one. Varietals with high pulp to seed/skin ratios (70:30, for example), soluble solids of greater than 18 percent, and good mango flavor should be promoted. Totapuri mango has relatively low soluble solids, usually contains larvae which mandates hand-cutting and trimming, and pulp yields of 60 percent or less;

Packing Alphonso mangos cuts in juice (of Totapuri mangos) adds value and product in mango processing. The high sweetness of Alphonso pieces is balanced with juice tartness;

Processing plants must operate 250 days per year at a minimum to be profitable. Reliance on single-season crops like mango is suicidal. India is blessed with climate and soil conditions that allow almost continual flow of fruits for processing. Wimco, Kissan, and Jagdale are examples to emulate in product diversification and management of cash flow. Alternate crops such as tamarind and tomatoes will provide continuity of production when other raw material supplies are low;

- \* Introduction of meaningful new products to improve profit margins is an important strategy for fruit processors. For example, making easy-to-prepare mixes, from sweets to gravies, can help such processors to increase business;
- \* Economies of scale must be well understood and applied by small processors. The mentality that the government will help them out is wishful thinking and must be changed; and
- \* The spiraling cost of shipping and the instability of some flavor extracts require transforming them into powder by spray-drying or microencapsulation. Flavor extracts and essential oils are spray-dried by mixing them with malto-dextrins (slightly hydrolyzed unripe bananas may be used as a replacement). Suspensions then are dried as droplets in hot air. Microencapsulation technology occludes droplets of flavor extracts or essential oils in proteinaceous films such as gelatin which, when dried, protects the contents from the damaging effects of humidity or air.

#### D.4 Constraints on the Implementation of Improved Processing Technology

Improved technology in processing by and large means higher investments either in terms of equipment or expertise. Viability therefore depends upon scale of operation, and capacity utilization depends on:

- \* Markets either in India or abroad which are almost nonexistent for locally processed fruit and vegetables; and
- \* Raw materials at the required quality, quantity, price, and range to support year-round operations.

While the farmer seems to be getting himself geared for the latter, thanks to the recent developments in the seed industry and farmer education programs, markets remain elusive. Processed fruit and vegetables are not a daily necessity to the Indian consumer, except in special cases such as hotels, restaurants, and working couples. Indian processed fruits and vegetables hardly have a name abroad. With suitable marketing efforts, this can be corrected. In the case of grading and packing fresh fruit and vegetables, the above comments hold, except that there would be a larger ready-market locally.

New technology means new types of equipment, in most cases imported. Wholly export-oriented companies find it somewhat easier to acquire such equipment. In other cases, due to the balance of payments situation and procedures and rules, it takes months to get an import license. There are even cases of emergency spare parts taking eight weeks to procure. For after-sales service using foreign technicians, the procedures are so cumbersome that industries end up employing untrained local technicians. There is an overwhelming opinion that the costs of foreign spare parts and service are prohibitive, leading to local solutions by trial and error.

Trained manpower for operating modern sophisticated equipment is conspicuous in its absence.

Purchasing new technologies from abroad is also subject to several procedural constraints. Imported technologies or equipment become obsolete by the time they are mastered by local industry.

There is hardly any technology developed by the Indian R&D establishment. Even if expertise is available, investments in market-driven R&D are not forthcoming.

Infrastructure to handle new technology is sometimes totally non-existent, as in the case of frozen products.

When ACE provides technical assistance to agroprocessors, the TA must identify new technologies, taking into account not only the needs of Indian entrepreneurs, but also the realities of doing business in India.

## D.5 Product Development

### Introduction

A technically sound program of production and marketing trials is essential for successful introduction of market-driven activities. This section will discuss various components of product development.

While ACE will support any post-farmgate activity, it will not assist on-farm activities. An example would be the introduction of baby corn, which requires the following components:

- i) Varietal observation trials;
- ii) Cultural trials;
- iii) Demonstration trials;

- iv) Production trials;
- v) Test market preparation and shipping of samples for local or export market; and
- vi) Full scale production, post harvest handling, transportation and marketing.

Activities 1-4 will not be assisted by the Project; however, 5-6 (post-harvest activities) will receive assistance.

Varietal Trials: A grower or processor introducing a new varietal will have to conduct trials in the first year of the project in order to begin agronomic trials in the second year. A minimum of three years' data is required to verify the suitability of a variety.

Agronomic Trials: Cultural trials on the performance of a varietal will begin in the second year of project. A minimum of three years' data will be required to recommend a package of practices.

Demonstration Trials: In the third year, a varietal will be ready for demonstration to farmers. Generally three years' agronomic data is required before demonstration can begin. However, to save time, trials could be conducted off-season under controlled conditions.

Market Preparation: Market development will begin in the third year of the project, with the produce obtained from demonstration trials.

Packing, Transport, Shipping, Test Market: Before commercial production begins, a series of technical studies will be required on packing, transport, and shipping to determine market needs. Samples taken from demonstration trials will be sold to determine actual market demand. Quality tests using a consumer product group will be made. Feedback from this consumer group will be incorporated into commercial production. Successful testing of production, post-harvest handling, and marketing will provide the basis for widespread adaptation by farmers.

#### Export Market Potential for Indian Mangos

India exports 23 thousand metric tons of fresh mangos, compared with 20 thousand metric tons of other fruits, mainly to Gulf countries. While mangos make up 5 percent of all agricultural product exports, exports only make up 0.2 percent of total Indian production. Though mango exports have gone up by 225 percent since 1980, great potential for increasing exports still exists.

Presently, most mangos are exported to Gulf countries (very few go to West Europe), destined for the Indian expatriate community. However, with improved product quality, packing, and transport, the export market could be expanded to other countries. The important thing here would be to study market demand. It is recommended that a study to identify weak linkages for potential commodities and markets be conducted before the project starts. The study results would point out potential markets and related product development needs.

#### D.6 Industry Focus Concept For ACE Project Implementation

##### Introduction

Project design calls for the strengthening of private agribusiness in Maharashtra. Project activities will focus primarily on fresh and processed fruits and vegetables, and flowers and foliage. In the first phase, project activities will be limited to Maharashtra and exceptional cases where activities outside the state directly support post-farm horticulture in Maharashtra. The sheer magnitude of the task faced by limited project resources makes it necessary to concentrate on the development of integrated agribusiness systems. The systems approach will require that priorities be established and specific goals be set for project activities in each agro-industry considered for development. This way, activities within each agribusiness system can be orchestrated to maximize output.

Specifically, this means that related agro-industries are to be targeted, and project efforts concentrated on making these successful, starting with the farmer and reaching all the way to the end user. Project efforts can be monitored and successes measured in terms of production output, the volume of exports, the creation of new businesses or the strengthening of existing businesses, the amount of training and education of agro-industry participants, and the degree of strengthening support institutions.

Based on an initial analysis of the current situation with regard to agro-industrial development in Maharashtra, the most logical candidate for the pilot program is the grape export agro-industry in Maharashtra. The successful development of the pilot agro-industry will not only provide a model for the development of others, but also will address a number of constraints in service industries (product cooling, packaging) which cut across all agro-industries. Most importantly, a pilot program will ensure that the energies, efforts, and talents of the ACE team are focused on activities which have the highest priority, particularly during the initial project stages. Finally, the successful development of the pilot agro-industries should provide positive results which themselves give impetus to successful efforts in other agro-industries.

As further information becomes available with the completion of industry profiles in the initial stages of the Project, the selection may be reconsidered. Regardless of the specific agro-industry selected for development as a pilot program, the concept as a mechanism for project implementation should be maintained.

### The Export of Fresh Grapes from Maharashtra

India claims to have the highest productivity of Thompson seedless grapes recorded anywhere in the world, with 37 metric tons per hectare. Major concentrations are in Maharashtra, Andhra Pradesh, and Karnataka, in order of hectares in production. In Maharashtra, the total area under cultivation is presently estimated (1991) at 15,000 hectares. Average productivity is about 25 mt/ha. The area under grape cultivation has expanded rapidly over the past three years, with the largest growth occurring in the districts of Nashik, Ahmadnagar, Pune, Satara, Sangli, and Solapur, all which are in western Maharashtra. The increases in production have not been matched by post-harvest infrastructure for packaging and cooling, nor in export marketing.

Under present circumstances, fresh grapes are manually sorted and graded at the farm level, and packed in cardboard boxes. For export boxes, imported impregnated "grape guard" paper is used as a packaging material. However, the quantity exported is negligible in comparison to the quantity produced. Export markets are potentially attractive, particularly in view of the seasonality of the production in Maharashtra.

The actual system of fresh grape production and marketing is shown in the Maharashtra Grape Agro-industry Flowchart in Figure 1. The present handling techniques are unsophisticated, and refrigerated storage is not available, so waste is relatively high. The main wholesale market for Maharashtra is in Pune, some 6-7 hours away from the major grape growing areas.

ADMINISTRATIVE ANALYSISE.1 Introduction

The Industrial Credit and Investment Corporation (ICICI) will be the principal implementing agency for the ACE Project. ICICI will provide a grant to one apex trade association, the Maharashtra Chamber of Commerce and Industry (MCCI) [and perhaps a second grant later to the Federation of Andhra Pradesh Chambers of Commerce and Industry (FAPCCI)], to implement several activities under the Project and to assist in project promotion. Following is a summary of responsibilities and mechanisms for implementing the ACE Project:

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<u>ACE Activity</u>	<u>Implementing Organization</u>	<u>ACE Project Mechanism</u> ,
Loans	ICICI ACE Group	USAID Grant Agreement
US ST Training	U.S. Contractor	USAID TA Contract
Prefeasibility Studies	US & Local Contractors	USAID TA Contract
Policy Studies	MCCI	ICICI Grants
T/I Tours	ICICI ACE Group	USAID TA Contract
Technical Assistance	US & Local Contractors	USAID TA Contract
Trade Assn. Grants	MCCI	ICICI Grant

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E.2 ICICI Mandate and Programs

ICICI was established in 1955 to promote industrial development by providing financial assistance to industrial enterprises. ICICI is incorporated in Bombay under the Indian Companies Act of 1913 as a public limited company. Its shares are listed on the Bombay Stock Exchange, unlike India's other major DFIs, which are established under special legislation and are wholly owned by the GOI or government agencies.

ICICI's clients are predominantly private firms. Of ICICI's loan, equity and guarantee approvals in 1989/90, 86 percent of clients were private firms, 11 percent were "joint sector" firms, and three percent were cooperatives; only 0.4 percent were public sector corporations.

ICICI places no minimum limit on the size of firms eligible for assistance or on the amount of assistance available. In practice, ICICI does not provide financial assistance of less than Rs 2.5 million (\$119,048).

ICICI's development and lending policies reflect the objectives of the GOI's industrialization strategy. During the 1950s, ICICI's lending was oriented toward promotion of entrepreneurship, increasing output of "essential" consumer goods and diversifying domestic production of capital goods. In the 1960s, ICICI lending encouraged import substitution and in the 1970s export-oriented industries. In the 1980s, lending was oriented toward subsectors offering net foreign exchange earnings, modernization of facilities, and energy savings. Recent strategy seeks to promote internationally competitive export industries and includes a focus on the electronics and telecommunications sectors.

ICICI is not legally subject to supervision by the GOI or Reserve Bank of India (RBI), but in practice ICICI consults with the GOI and RBI on operational policies, including interest rate structure and sectoral allocations. Because of the GOI's extensive involvement in the operation of the Indian financial system, however, ICICI's policies are heavily influenced by those of the GOI. For example, interest rates on loans are fixed depending on the type and location of a firm receiving a loan. The normal interest rates charged by commercial banks are 15 percent minimum on term loans and 16 percent minimum on working capital loans. These are expected to be increased soon. There are many concessional interest rates, however, depending on socioeconomic priority, purpose and size of the loan, and location of the project to be financed. For example, 13.5 percent is charged on loans for "rehabilitation projects," 14.5 percent on loans to small-scale industries (total assets of less than \$330,000), and 13.5 percent on loans to projects in backward areas up to a certain amount. These interest rates are generally positive in real terms compared to the long-term inflation rate of about eight percent in India.

Through consultation with the Industrial Development Bank of India (IDBI) and RBI, ICICI has some limited influence on the GOI's industrial and capital market policies. Because of ICICI's effective working relationship with the GOI, it is likely that selected policy and operational innovations concerning agribusiness and agricultural lending arising from the ACE Project will be introduced to government financial institutions.

### E.3 ICICI Ownership and Resources

ICICI's authorized share capital as of March 31, 1990 was Rs 2 billion, of which Rs 915 million has been issued and paid up. Shares of ICICI are largely held by public sector corporations, including 35 public sector financial institutions (81.4 percent of equity), but equity is also held by over 10,000 private companies and individuals (9.3 percent of equity) and 40 foreign investors (9.3 percent of equity).

ICICI's total assets as of March 1990 were Rs 59 billion (about \$3.26 billion\*). Since 1985, ICICI has maintained a solid financial position, with growth in shareholder funds from Rs 1.75 billion to Rs 4.77 billion, and a reduction in the long-term debt/equity ratio from 10.5:1 to 8.5:1 over this five year period. Growth in total assets has averaged 25 percent per year since 1985.

According to informed sources, ICICI has a sound reputation in international financial markets as a creditworthy borrower, having received 20 loans from the World Bank for a total of \$1.4 billion, 26 loans from the German Credit Institution for Reconstruction (KfW) for a total of DM 374 million and one loan from the Asian Development Bank (ADB) for \$100 million.

ICICI maintains very good profitability and pays substantial dividends. For the year ended March 31, 1990, ICICI's return on equity was 22.5 percent and return on assets was 1.8 percent. ICICI's dividend rate has increased from 17 percent in 1985 to 20 percent in 1990. The ratio of "arrears affected loans" to total loans has declined significantly from 11.5 percent to 7.1 percent between 1985 and 1990. As a proportion of total outstanding loans as of March 31, 1990, loan arrears are at the manageable level of 2.8 percent of total loans. Due to accounting practices prevalent in the banking industry in India, it is difficult to determine an average loan loss ratio for ICICI.

### E.4 ICICI Management and Staffing

ICICI's Board of Directors currently has 15 members including representatives of ICICI management, the private sector, foreign shareholders, the Government of India, and IDBI. The board determines administrative and operational policies and annual budgets. An Investment Committee supervises management of ICICI's securities portfolio, including direct equity investments. A Committee of Directors, including the managing director and two deputy managing directors, has the authority to sanction loans and investments where ICICI's exposure will exceed Rs 50 million (\$2.5 million).

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\* Exchange rate on March 31, 1990: \$1 = Rs 18.08

ICICI has a single managing director, two deputy managing directors (DMDs), and the following major divisions:

Under DMD 1:

General Administration  
Western Zonal Office  
Regional Zonal Offices  
Operations  
Market Research

Under DMD 2:

Financial Services (including investments, leasing, credit lines,  
and merchant banking)  
Accounts  
Planning and Development  
Technology (including Development, PACER, PACT & SPREAD)  
Special Accounts  
Corporate Legal Advisory Services  
Economics  
Publications, Public Relations & Library  
BIFR Coordination

As noted above, PACT and PACER are managed by the Technology Development Division of ICICI. It is expected that ACE will also be included in this division.

In the late 1980s ICICI adopted a strategy of decentralizing lending activities to zonal offices in Bombay, Delhi, Calcutta, and Madras. By 1995, these offices are expected to operate as autonomous profit centers with responsibility for all operational decisions.

As of August 31, 1990, ICICI has a total of 926 staff, including 489 professionals.

#### E.5 ICICI Capability to Manage ACE

The ACE Project will require ICICI to carry out a wide range of activities. Many of these activities involve clients and technical challenges that will be new for ICICI. Because of ICICI's broad range of corporate capabilities and its reputation for excellent management, it is fully expected that ICICI will be able to successfully implement the full range of project activities.

ICICI is capable of carrying out non-banking activities. ICICI has successfully executed its responsibilities under three USAID projects: PACT, PACER, and the Center for Technology Development. In addition, it has established a venture capital subsidiary, TDICI, and a technical consulting subsidiary, MITCON. These projects and activities demonstrate ICICI's ability to carry out technical assistance, investment promotion, technology promotion, and institution building activities.

The ACE activity that is expected to be the easiest for ICICI to carry out is the administration of project loans. The technical assistance activity will be challenging because of its relatively large size and because of the "non-traditional" nature of many of the post-farm investment projects. ICICI should be able to carry out this activity, however, because of its extensive experience with technical assistance in non-agribusiness industries.

It is possible that the ACE activities involving trade associations will be more difficult for ICICI to carry out. These include the policy studies and ACE project promotion. MCCI (and later perhaps FAPCCI) grant is designed to help ICICI in this respect by establishing a medium-term relationship between ICICI and the association, and by sharing costs of implementing ACE activities. As long as the ICICI ACE Group staff understand that the trade association component is an important project element, ICICI should be able to implement it successfully.

#### E.6 MCCI

The Maharashtra Chamber of Commerce and Industries was established in 1934 as the apex representative body for trade, commerce, and industry in Western Maharashtra. The Chamber is affiliated with the national Federation of Indian Chambers of Commerce and Industry (FICCI).

MCCI has two major objectives: (1) to promote and protect commerce and industry in Maharashtra; and (2) to assist entrepreneurs in pursuing industrial and commercial occupations in Maharashtra. The Chamber is located in Pune and has regional offices in the neighboring districts of Ahmednagar, Kolhapur, Satara and Nasik. The Chamber has about 2,400 members, mainly private companies, but also government agencies, parastatal corporations and NGOs.

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### E.7 MCCI Organization and Resources

The Chamber is administered by an executive committee of 60 members selected by all MCCI members. The committee consists of a president, four vice presidents, two honorary secretaries and a treasurer. The current Honorary Secretary is M.G. Sathe. The vast majority of MCCI functions are carried out through its functional subcommittees, including imports, exports, central excise, taxation and finance, transport and labor. The Chamber also has wings for small scale industrial promotion, for the electronics industries, and for specific regions within Maharashtra. Each wing has its own chairman.

In 1991, Dr. Neelkanth Kalyani, Chairman of Bharat Forge Ltd., became president of MCCI. Dr. Kalyani is a prominent businessman in Maharashtra with a respected background in both industry and public service. Dr. Kalyani has been encouraging MCCI to become substantially more active in the agricultural and agribusiness sectors. In 1991, MCCI constituted a separate Agricultural Committee and has decided to allow agricultural institutions and businesses to become full MCCI members. This is the first time a major regional chamber of commerce and industry in India has given full representation to agribusiness.

The chamber has a secretariat responsible for providing support and operational facilities to the chamber's committees and service activities. MCCI provides the following services:

- \* Excise advisory service;
- \* Import-export advisory service;
- \* Export service programs;
- \* Export executives club;
- \* Labor advisory service;
- \* Employment service;
- \* Group telex and fax services;
- \* Photocopying and reproduction services;
- \* Translation services;
- \* Ad hoc foreign study tours;
- \* Trade introductions;

- \* Certificates of origin;
- \* Short-term office space and general services;
- \* Library and statistics service;
- \* An electronics industry estate; and
- \* Training programs on various topics.

#### E.8 MCCI Capability to Implement ACE Activities

MCCI will be responsible for the following ACE activities: promoting the ACE Project; referring potential ACE beneficiaries to the ICICI ACE Group; establishing agribusiness support services; and implementing the policy studies activity of the project.

MCCI currently carries out all of these activities for its members (in sectors other than agribusiness) and has demonstrated the capability to implement project activities successfully. In addition, MCCI senior management are enthusiastic about cooperating with the Project. This enthusiasm extends to all the trade association activities of the project. Independent of ACE, Dr. Kalyani has committed MCCI to a major agribusiness promotion and support program, and the Project will provide a number of activities and resources that fit MCCI's agribusiness objectives closely.

#### E.9 FAPCCI

The Federation of Andhra Pradesh Chambers of Commerce and Industry (FAPCCI) is a state-level non-profit apex association of industrial and commercial businesses in Andhra Pradesh. FAPCCI was established in March 1917 as the Hyderabad Chamber of Commerce. It is currently a member of the Federation of Indian Chambers of Commerce and Industry (FICCI) and the Associated Chambers of Commerce and Industry of India (ASSOCHAM).

As of March 1991, FAPCCI has over 1,620 members, including public and private companies, business associations, and government agencies. FAPCCI has over 137 trade and industrial associations as members. Its main functions include:

- \* Promoting and protecting the interests of trade and industry in Andhra Pradesh;
- \* Collecting and disseminating statistical and other information relevant to trade and industry in AP;

Encouragement of common action and understanding of business issues among members of the business community in AP; and

Conducting policy dialogue with government agencies on business issues.

#### E.10 FAPCCI Organization and Resources

FAPCCI is governed by a Managing Committee consisting of 26 members. An additional 19 operational committees carry out activities in areas of interest to members; these are:

- \* Industrial Development Committee;
- \* Federation Budget Committee;
- \* Trade and Commerce Committee;
- \* Small Scale Industrial Development Committee;
- \* Direct Taxes Committee;
- \* Railway Transport & Communications Committee;
- \* Industrial Relations Committee;
- \* Consumer Relations Committee;
- \* Awards Committee;
- \* Energy Committee;
- \* Foreign Trade and Shipping Committee;
- \* Public Relations and Membership Development Committee;
- \* Road Transport Committee;
- \* Selection Committee;
- \* Raw Material & Fuel Committee;
- \* Company Law Committee;
- \* Central Excise & Customs Committee;
- \* Banking & Finance Committee; and
- \* Building Committee.

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FAPCCI supports the Indian Institute of Economics (IIE), an independent economic research organization. The IIE publishes the Asian Economic Review.

The daily work of the federation is carried out by a secretariat of forty staff. The secretariat is headed by a secretary general, assisted by a deputy secretary, two senior assistants and three specialists. The current Secretary General is M. Venkata Rao.

In 1989-90, FAPCCI's annual total expenditures were Rs 1,263,570 (\$66,661) and gross income was Rs 1,160,375 (\$61,217).

#### E.11 FAPCCI Capability to Implement ACE Activities

If Andhra Pradesh is selected to participate in the project, FAPCCI will be responsible for the following ACE activities: promoting the Project; referring potential ACE beneficiaries to the ICICI ACE Group; establishing agribusiness support services; and implementing the policy studies activities of the project.

FAPCCI currently has its own programs in information services, policy dialogue, and investment promotion. FAPCCI's current president, Mr. A. Krishna Murthy, is very interested in agribusiness activities. According to both Mr. Krishna Murthy and FAPCCI's current secretary general, FAPCCI is willing to carry out all trade association activities envisioned in the Project. Based on a brief review of FAPCCI's current activities and budget, and the interests of its senior officers, this association will be able to carry out its responsibilities under the Project with proper supervision and assistance from ICICI's ACE Group.

#### E.12 Staffing and Administrative Requirements in USAID

The Project will delegate virtually all implementation responsibility to the ICICI ACE Group. Certain activities will be carried out by MCCI (and perhaps by FAPCCI) with ICICI.

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In much of its work, the ACE Group will be assisted by an Institutional Contractor, involving U.S. and Indian private firms. Because it is considered more efficient for USAID to arrange a direct contract for these services, USAID will be required to administer this contract. ICICI will be required to manage the technical aspects of this contract.

Under this arrangement, it is expected that the administrative burden of the Project on USAID will be relatively light. ICICI will be responsible for all technical and logistical aspects of the Project. USAID will be responsible for monitoring the Project, and will have to administer financial aspects of the institutional contract.

#### E.13 GOI and State Government Administrative Involvement

There will be no direct involvement of state or central government in implementation of the Project. However, the GOI will be represented on the ACE Advisory Council to provide guidance for the Project, and to provide a forum for discussion of policy and other issues of relevance to agribusiness.

FINANCIAL ANALYSISF.1 Introduction

This section provides an analysis of the loan component of the ACE Project which constitutes 50 percent of project cost and is meant to provide loans to private agribusinesses.

The Project will provide \$10 million in A.I.D. funds for loans to private agribusinesses through ICICI. An additional \$10 million equivalent in rupees will be provided by private agribusiness entrepreneurs and other financial institutions. ACE loans will be made under the usual terms and conditions for ICICI loans to comparable clients. To the extent possible, ICICI will follow its standard lending norms and terms for industrial loans.

F.2 Expected Term and Conditions of ACE Agribusiness Loans: For the purposes of this analysis, it is anticipated that ICICI will lend at the rates prevailing for the development finance institutions, i.e., presently 16.5 percent p.a. The maximum ACE loan allowable will be \$750,000. The average term of loans will be five years. Grace periods on interest and principal will be granted following ICICI's usual practice for comparable projects. We assume that the average loan will be \$400,000; this is for the purposes of this analysis only and should not guide or govern ICICI's project screening and selection procedures.

F.3 Performance of ACE Loans: Interest (that remaining after payments for agreed upon administrative and operational costs) and principal reflows from ACE loans will be reloaned under the same terms and conditions governing the initial \$10 million fund. It is assumed that yearly commitments of the initial \$10 million will be the following:

Initial Commitments of ACE Loans

<u>Year</u>	<u>Amount of USAID Funds Committed</u>
1992	\$1,000,000
1993	\$1,500,000
1994	\$3,000,000
1995	\$3,000,000
1996	\$1,500,000
	-----
<b>Total</b>	<b><u>\$10,000,000</u></b>

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Table F.1 summarizes the performance of the ACE loans. During the seven year life of the Project, the USAID portion of loans will earn approximately \$4.5 million in interest. In addition the funds will earn \$1.1 million on reinvestment of principal and interest reflows in interest bearing account/deposits. Interest (that remaining after payment of agreed upon administrative and operational costs) and principal will be reloaned for qualifying private agribusiness projects. Assuming that the average loan size is \$400,000, the total number of loans that will be made under ACE will be 25.

ICICI does not have an established estimate for annual loan losses. This is because generally accepted accounting principles in Indian financial institutions allow overdue loans to stay on the books for much longer than if common international GAAP standards were followed. However, during 1990, 2.8 percent of ICICI loan accounts were in arrears for over 12 months. Using this as a benchmark, we estimate that ICICI's overall loan loss rate is 2.8 percent of total outstanding loans. ACE loans will be made to projects that show strong evidence of financial viability. Therefore, it is reasonable to assume that ACE loans will have approximately the same rate of loan losses. Given the annual lending rate of 16.5 percent and overall loan loss of 2.8 percent, the gross return on the ACE loan fund will be approximately 13.24 percent (16.5 percent minus 2.8 percent of 16.5 percent minus 2.8 percent). The reflow analysis detailed in Table F.1 assumes a zero tax status of interest earnings by ICICI.

In addition, ICICI is expected to charge approximately two percent as management fee to meet its direct and indirect expenses for managing project loans, reducing the net return to 11.24 percent. Project loans will also earn a return from reinvestment of reflows (principal + interest) in interest bearing account/deposit. Since this return will be over and above the aforementioned net return of 11.24 percent, the core of project loan funds will marginally multiply over and above its real value of \$10 million. As shown in Table F.1, these funds will have a present value of \$10.3 million and an actual value of \$20.2 million by the end of year 13, i.e., when 97.8 percent of principal reflows on all the loans using A.I.D. funds will have been recovered (after providing for a loan loss of 2.8 percent).

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TABLE F.1.

ACE REFLOW PROJECTIONS FOR THE LOAN COMPONENT  
(FIGURES IN \$ 000'S)

YEARS	1ST TRANCHE 500		2ND TRANCHE 1,250		3RD TRANCHE 2,500		4TH TRANCHE 2,500		5TH TRANCHE 2,500	
	PRINCIPAL REFLOWS	INTEREST REFLOWS								
YEAR 1	0	0	0	0	0	0	0	0	0	0
YEAR 2	0	80	0	0	0	0	0	0	0	0
YEAR 3	0	80	0	0	0	0	0	0	0	0
YEAR 4	97	64	0	200	0	0	0	0	0	0
YEAR 5	97	48	243	160	0	401	0	0	0	0
YEAR 6	97	32	243	120	486	321	0	401	0	0
YEAR 7	97	16	243	80	486	241	486	221	0	401
YEAR 8	97	(0)	243	40	486	160	486	241	486	321
YEAR 9	0	(0)	243	0	486	80	486	160	486	241
YEAR 10	0	(0)	0	0	486	0	486	80	486	160
YEAR 11	0	(0)	0	0	0	0	486	0	486	80
YEAR 12	0	(0)	0	0	0	0	0	0	486	80
YEAR 13	0	(0)	0	0	0	0	0	0	0	0
REFLOWS	486	321	1,215	802	2,430	1,604	2,430	1,604	2,430	1,604
FAILURES	14	0	35	0	70	0	70	0	70	0
REFLOWS + FAILURES	500		1,250		2,500		2,500		2,500	

INTEREST RATE: 16.50%

ASSUMPTIONS:

- Interest rate of 16.5% per annum has been assumed on commercial loans.
- Principal reflows have been assumed to begin after 2 years of the first disbursement @ 19% per annum. The principal is expected to be repaid in five years with successful collections of 97.2%. Interest reflows to begin after 6 months from the first disbursement.
- The loan fund is expected to be disbursed in the following tranches by ICICI:  

Tranche 1:	500
Tranche 2:	1,250
Tranche 3:	2,500
Tranche 4:	2,500
Tranche 5:	2,500
Tranche 6:	750
- The reflows are expected to be retained by ICICI in an interest bearing account and/or deposits pending liquidation of project funds. Such deposits are expected to yield a return of 12% per annum upto year six. Beyond year six, the reflows are expected to be used for making loans at commercial rates to yield a return of 16.5% and above.

ECONOMIC ANALYSIS

G.1 Method for the Economic Analysis

For the purpose of this analysis we have identified two broad categories of project activities. The first consists of technical assistance and financial transfers to private firms. In all cases these activities support or assist private firms in identifying, planning, and implementing agribusiness investment projects. ACE resources will be provided to projects that demonstrate a strong likelihood of commercial and financial success and provide a new product or service to post-farm agribusiness industry. These projects will be selected to maximize increases in value added to horticultural products.

This first category includes the following ACE activities (total project cost in parentheses):

1. Loans (\$20 million);
2. Technical assistance to private firms (\$2.96 million); and
3. Trade and investment tours (\$529,000).

ACE activities in the first category will cost a total of \$23.491 million.

The second broad category of project activities is to strengthen a trade association in order to improve the environment for agribusiness.

The purpose of ACE assistance to the trade association is to reduce regulatory barriers constraining post-farm horticulture and industries, and to improve the quality of information and services provided by the association to its members engaged in agribusiness.

This second category of ACE activities includes:

1. A grant to MCCI, a major trade association, for institutional strengthening in agribusiness and for policy studies (\$570,000); and
2. Support to ICICI for institutional strengthening in agribusiness lending (\$916,000).

In preparing a cost-benefit analysis for the ACE Project it is necessary to differentiate between components that have relatively clearly defined future benefits and those with benefits that are diffuse and hard to quantify. The activities in category 1, assistance to private agribusiness projects, have relatively clear future benefits. Category 2 activities, assistance to trade association and policy dialogue, have much less easily measurable benefits. Below is an analysis of category 1 activities followed by a brief assessment of category 2 activities.

## G.2 Financing Private Agribusiness Projects

The proposed ACE loan facility will finance new or modernized agribusinesses in the post-farm service and processing subsectors. To be eligible, projects must show high potential to add value in agriculture. Indian producers and processors find it difficult to reach high value markets. The Project will provide economic benefits by promoting services and infrastructure that link producers to markets. Loans will go to projects that are both financially sustainable and promise substantial economic benefits through increased value added and employment.

ACE loans will be provided at prevailing ICICI interest rates. These rates are not market-determined, but rather are administered by the Central Reserve Bank of India. The average lending rate to eligible ACE borrowers is expected to be 16.5 percent. Loans will be made on a competitive basis to projects with strong prospects for both high impact on the development of post-farm agribusiness services and financial viability.

Using ICICI's lending norm of 1:2:1 equity to term loan (from ICICI's ACE loans) to working capital (from a commercial bank), we expect the \$10 million ACE loan facility to induce an incremental investment of \$20 million. However, the Asian Development Bank estimates that the incremental investment induced by an ICICI loan is much higher, on the order of 11 to 1. Using the ADB's multiplier, we estimate that the incremental investment in agribusiness induced by ACE loans will be approximately \$110 million.

The ADB estimates that the value added generated by a dollar lent by ICICI is about \$3.3. Using this figure, the estimated value generated by the \$10 million ACE loan fund is estimated to be about \$33 million. This appears to be a reasonable and acceptable estimate. The ADB estimates that one job is created for every \$7,100 in ICICI loans. Using this estimate, the ACE loan facility is expected to create 1,400 jobs.

### G.3 Providing TA for Private Agribusiness Projects

The Project will provide a total of \$2.96 million for technical assistance to private firms. All TA provided to private firms will be directed at specific agribusiness investment projects. With a total of 108 person months of technical assistance budgeted in project costs and with average usage of one person-month for every firm, it is expected that ACE will provide TA to over 100 firms.

Because of ICICI's careful selection of projects for assistance, most TA will go to private projects that significantly increase the value added in the agriculture sector and will be financially viable. It is difficult to quantify the benefits resulting from TA to private projects, but we will use the commonly expected annual 50 percent return on equity that would be common among investors in India as a proxy for economic benefits resulting from the TA fund. This is a reasonable proxy because the TA is provided to increase the marginal productivity of equity invested in post-farm agribusiness projects, and a reasonable estimate of the average return on equity is 50 percent.

The Project will provide approximately \$500,000 per year in technical assistance to private firms. We assume the benefits of this TA will be distributed over the life of the project. At the 50 percent rate of return, the TA would have a value of \$16 million over the life of the project.

### G.4 Assistance to Service Institutions

For the second category of ACE activities it is much more difficult to estimate future economic benefits. The objective of these activities is to increase the effectiveness of ICICI and of a major trade association, and to encourage policy reform. Policy reform will result in a general improvement in the business climate for agribusinesses.

Well-planned infrastructure investments tend to have high economic returns. Similarly, relaxation of onerous regulations affecting agribusiness will also provide high economic return. It is reasonable to assume that the ACE activities directed at strengthening trade associations and improving the policy environment will result in benefits that are considerably greater than their costs. We do not attempt to quantify these economic benefits.

SOCIAL SOUNDNESS ANALYSIS

H.1 Introduction

The Indian central and state governments have been focusing attention on agribusiness development and have placed considerable emphasis on the food processing industry. The need for such an emphasis is demonstrated by the fact that Rs. 400 crore (1 crore = 10 million) worth of fruits and vegetables is wasted every year because of seasonal abundance and the lack of organized marketing.

The ACE Project goal -- to develop a dynamic private agribusiness sector in India -- will lead to increased agricultural income through improved infrastructure, market linkages, technologies, and strengthened associations and financial institutions.

The market-oriented fruits and vegetables processing project is likely to generate considerable new employment, especially in rural areas of Maharashtra (and perhaps Andhra Pradesh). Success of the project will contribute to further employment generation and skills improvement in crop production, post-harvest handling, packing, transport, and marketing, and, in the case of export-oriented products, air and sea freight shipping.

Maharashtra and Andhra Pradesh have 29 and 22 fruit and vegetable districts respectively. Both states have initiated horticultural development programs that provide special incentives to growers; both production and productivity are expected to increase. This could provide additional income to farmers and improve their standard of living, if the program receives matching post-harvest support for collecting, grading, packing, transport, marketing, and processing.

H.2 Sociocultural Feasibility

Traditionally, Indians have been consumers of fresh food. However, with dual income in many families, consumption of both processed foods and fresh fruits has increased. Seasonal abundance of fruits creates a glut in some markets while others experience scarcities. This could be easily avoided by proper management of collection, grading, packing, transport, and marketing. Small growers, who have to sell their produce at cheaper rates in season, and consumers who have to pay high prices for commodities would directly benefit from organized marketing. Mahagrape and Mahamango are two organizations which produce (grapes and mangos respectively) according to the needs of market, resulting in better return on investment.

Private sector companies based in Sindhudurg, Pune, Bombay, and Nasik (Maharashtra), and Chittoor, Vizag, Vijayawada, and Hyderabad (Andhra Pradesh), will likely be the main project participants. Approximately 25 processors/producers will receive commercial loans. At least 100 units will benefit from technical assistance.

Most processing units are scattered, except Sindhudurg and Ratnagiri in Maharashtra and Chittoor in Andhra Pradesh, where small mango processors operating for 50 to 60 days a year are concentrated. Strengths and weaknesses of the processing industry identified by ACE are recognized by the industry as well. There is some possibility, however, that processors may not request the services they need, because of perceived risks of using new technologies or targeting new markets. Ushodaya Enterprises, for example, decided that the latest transport and processing technologies are uneconomical because the country's traditional market (Soviet Union) is not ready to buy improved quality products.

New businesses directly linked to agribusiness (e.g., collection centers, grading centers, packaging units, cold storage, and controlled temperature transportation) may be difficult and expensive to start; however, they will create the climate of change necessary for an improved agribusiness industry.

### H.3 ACE Promotion

Communication among potential project participants and the spread of new technology are priority problems complicated by the "cultural distance" between project administrators and participants. Successful communication will require ICICI to develop a strategy to identify points of origin and destination for communications, to assign roles, and to clarify the content, nature, and frequency of communications. As the implementing agency, ICICI will need to develop brochures and promotional literature to advertise ACE. It will also decide on the timing and frequency of advertisements and, most importantly, get feedback to make necessary improvements. Promotional literature will cite the advantages of private sector participation in ACE, such as increased rural income and improved agribusiness infrastructure. Promotional literature should clearly state the goals and objectives of ACE, and describe the logic behind the Project.

The Project will support approximately 125 firms (through commercial loans and technical assistance), covering less than 50 percent of existing units in Maharashtra and Andhra Pradesh. That means many units will not be supported directly by the project, though many small units will benefit indirectly if linked to big processors such as Wimco, Parle, and Dukes. Initially, project impact will be on relatively well-off firms, percolating slowly to small units. The ACE promotional unit will be responsible for communicating success stories through organized workshops, seminars, and other means.

In each area where ACE activities are planned, the most respected leaders should be identified. Examples are Kirloskar Pneumatics and Tatas in refrigerated transportation, Wimco in processed fruit exports, Mahagrape in fresh grape exports, and Akbar Aile in fresh Alphonso mango exports. Support from such leaders is often more useful than the best efforts of extension workers to strengthen project impact. However, it is necessary to ensure that the private business interests of such leaders do not lead to monopolistic behavior or excessive market concentration.

#### H.4 Factors Affecting Social Impact

Commodities: The major commodities to be considered under the Project are horticultural crops, especially those with export potential such as mango, grapes, tomato, tamarind, pineapple, pomegranate, and cut flowers. Guava and papaya would be also considered under the project.

Seasonality: Grape exports take place mainly between February and March. The grape season actually starts in January. Production operations begin three months before that, and growers are busy with harvest operations until April.

The mango season starts in April. The crop is in abundance in May and June, the time for exports. Production and harvesting operations are conducted from December to August. Tomatoes are grown year round, and are in abundance from January to May. Production and harvesting operations continue all year. Labor inputs are required almost throughout the year.

Crop	Jan	Feb	Mar	Apr	May	June	July	Aug	Spt	Oct	Nov	Dec
Mango			X	X	X	X	X	X	X			
Grapes	X	X	X	X	X	X	X	X				
Tomato	X	X	X	X	X						X	

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**Packing:** The Project will encourage development of the packaging industry to improve the marketability of fresh fruits. At present, most fruits except cherries, strawberries, and apples travel long distances in bulk on trucks. Collecting, sorting, grading, and packaging under an organized system of marketing will require more labor.

**Agrochemical Uses:** There is growing concern among consumers about the application of pesticides to fruit and vegetable crops. Growers are generally exposed to hazardous chemicals while applying them to crops. There is concern that export-targeted commodities need close supervision to check such hazards. Such concerns will be included among the ACE group's criteria for reviewing proposals for ACE assistance.

**Female Labor:** More than 70 percent of the labor employed in the fruit and vegetable processing industry is provided by women. Sowing and harvesting operations also require women workers. Male workers are required for the heavy work of lifting, loading and unloading, but sorting, grading, cutting, and so on is generally done by women. Thus, ACE will increase women's employment and incomes.

#### H.5 Women in Development

Women play an important role in the agricultural sector of the Indian economy including the agroprocessing industry. They participate in decision making, are technically expert in pickle, papad, jam, and other processed food production and earn much income from on- and off-farm activities. During visits to plants, it was observed that labor forces were more than 70 percent female. Nevertheless, few women were observed in managerial roles (exceptions being the manager of Lijjat Papad, the managing director of Alfa Laval and the few women who own agribusiness units).

As discussed earlier, agroprocessing is not well-organized in India. Decentralized processing has promise for rural areas, especially in the small and medium sector. As the agroprocessing industry is expanded and upgraded, particularly for fruits and vegetables, there will be more opportunities for women. The table below indicates the present employment level of women in agroprocessing for some of the companies visited.

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Table . . . Women Employed in Agroprocessing

Processing Unit	Products	Percent women employed as laborers
James & Smith, Pune	jams, tomato, paste, sweet corn, tuna fish, etc.	60%
Ushodaya Food Products, Vijayawada	pickles	90%
Brihan Sugar Syndicate Ltd., Pune	ketchup, jams	80%
Lijjat Papad, Hyderabad	papad	99%
Padmavathi Home Products, Vijayawada	papad	99%

The smaller and less formal the enterprise, and the less gender-based the entry requirements, the easier it is for women to become entrepreneurs. The Andhra Pradesh State Finance Corporation's appeals have resulted in many women becoming entrepreneurs. Care should be taken not to segregate or discriminate against women by allocating separate funds or technical assistance. The ACE promotional literature should advertise for both men and women entrepreneurs, perhaps including women as a special category. Women entrepreneurs who propose an ACE-financed project will be given equal opportunity to compete.

ACE is a commercial project, not aimed specifically at women in development. However, ACE efforts to increase rural income through agribusiness development will significantly improve the employment opportunities and incomes of women workers, since they represent a large proportion of workers in agribusiness.

To the extent that ACE attempts to benefit women, monitoring and evaluation systems should be included in the design to measure the project's impact on women. These systems should contain accurate, sex-disaggregated data and socioeconomic analyses on entrepreneurs, labor, income, etc.

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ENVIRONMENTAL ANALYSIS

The ACE Project will be implemented by an intermediate credit institution, the Industrial Credit and Investment Corporation of India (ICICI). Per 22 CFR Part 2.16.2(c)(2) of A.I.D's Environmental Procedures, ACE is categorically excluded from an Initial Environmental Examination, Environmental Assessment, or Environmental Impact Statement under section (x):

"Support for intermediate credit institutions when the objective is to assist in the capitalization of the institution or part thereof and when such support does not involve reservation of the right to review and approve individual loans made by the institution."

ICICI will have complete review and approval authority for ACE-funded loans (as well as TA).

However, both USAID and ICICI are committed to inclusion of environmental criteria for the agribusiness activities under ACE. ICICI already includes environmental criteria in its appraisal process. In the ICICI publication for borrowers, Explanatory Notes for Filling Up the Application Form for Financial Assistance from All-India Financial Institutions, effluents are specifically addressed:

"Some of the units have run into difficulties for not having taken adequate and timely measures for proper disposal of solid, liquid and/or gaseous effluents. The purpose of this question is to ensure that the company has made adequate arrangements for treating all the effluents."

"Explain in detail the special characteristics, such as alkaline, acidic, toxic/poisonous etc. of the effluents which are harmful to any living organism or vegetation and the arrangements proposed for their treatment and disposal."

ICICI is a development finance institution with a mandate that includes social considerations such as employment generation and the environment. ICICI can and does turn down loans on environmental grounds, based on an evaluation of environmental concerns and how they are being addressed.

Further, environmental considerations will be an explicit criterion for ACE-funded loans. A Condition Precedent concerns development of loan criteria (to be satisfactory to USAID), and includes environmental consideration:

"Such criteria and procedures shall seek to minimize the potential adverse environmental impact of any resources provided by the Project to private agribusiness firms."

Although USAID will not have the right of loan review or approval, the Mission is assured that environmental considerations will be integral to the process.



UNITED STATES AGENCY for INTERNATIONAL DEVELOPMENT

NEW DELHI, INDIA

26 July 1991

ACTION MEMORANDUM FOR THE APRE ENVIRONMENTAL OFFICER

THROUGH: Walter G. Bollinger - Director, USAID/India *WUB*  
FROM: Andrea Y. Blumberg *cy/ab* - USAID/New Delhi

**ACTION:** To approve a Categorical Exclusion from Environmental Procedures for USAID/India's Agricultural Commercialization and Enterprise Project (386-0521).

**BACKGROUND:** The Agricultural Commercialization and Enterprise Project (ACE, 386-0521) will be implemented through the Industrial Credit and Investment Corporation of India (ICICI). ICICI is an intermediary credit institution and will have complete review and approval authority for ACE-funded loans and technical assistance. ACE is therefore eligible for a Categorical Exclusion from Environmental Procedures under 22 CFR Part 2.16.2(c)(2)(x).

However, USAID and ICICI have agreed that there will be consideration of adverse environmental impact of any Project resources provided to private agribusiness firms. Development of funding criteria (to be satisfactory to USAID), which includes environmental consideration, will be included in the Conditions Precedent of the Project Agreement. Further, ICICI does already include requirements regarding environmental considerations in their standard loan review process, and these requirements will also apply to Project-funded activities.

**RECOMMENDATION:** That you sign below indicating your approval of the attached Initial Environmental Examination, which states that the Project is Categorically Excluded from further Environmental Procedures.

Approved/Disapproved

*M. Kak, APRE, 8-1-91*  
APRE Environmental Officer

Clearance: JDTartar - PDPS *JT*

## INITIAL ENVIRONMENTAL EXAMINATION

The ACE Project will be implemented by an intermediate credit institution, the Industrial Credit and Investment Corporation of India (ICICI). Per 22 CFR Part 2.16.2(c)(2) of A.I.D's Environmental Procedures, ACE is categorically excluded from an Initial Environmental Examination, Environmental Assessment, or Environmental Impact Statement under section (x):

"Support for intermediate credit institutions when the objective is to assist in the capitalization of the institution or part thereof and when such support does not involve reservation of the right to review and approve individual loans made by the institution."

ICICI will have complete review and approval authority for ACE-funded loans (as well as TA).

However, both USAID and ICICI are committed to inclusion of environmental criteria for the agribusiness activities under ACE. ICICI already includes environmental criteria in their appraisal process. In their publication for borrowers, Explanatory Notes for Filling Up the Application Form for Financial Assistance from All-India Financial Institutions, effluents are specifically addressed:

"Some of the units have run into difficulties for not having taken adequate and timely measures for proper disposal of solid, liquid and/or gaseous effluents. The purpose of this question is to ensure that the company has made adequate arrangements for treating all the effluents."

"Explain in detail the special characteristics, such as alkaline, acidic, toxic/poisonous etc. of the effluents which are harmful to any living organism or vegetation and the arrangements proposed for their treatment and disposal."

ICICI is a development finance institution with a mandate that includes social considerations such as employment generation and the environment. ICICI can and does turn down loans on environmental grounds, based on an evaluation of environmental concerns and how they are being addressed.

Further, environmental considerations will be an explicit criterion for ACE-funded loans. A Condition Precedent concerns development of loan criteria (to be satisfactory to USAID), and includes environmental consideration:

"Such criteria and procedures shall seek to minimize the potential adverse environmental impact of any resources provided by the Project to private agribusiness firms."

Although USAID will not have the right of loan review or approval, the Mission is assured that environmental considerations will be integral to the process.

INTELLECTUAL PROPERTY RIGHTS ISSUES

J.1 Introduction

The ACE Project is designed to improve the investment climate for private agribusiness in horticulture. The Project focuses on providing loans and technical assistance to private firms. The points of intervention will include all post-farm subsectors - post-harvest handling, packing, transport, cold storage, processing and marketing.

It is not anticipated that ACE will generate any new intellectual property. However, to the extent that the Indian agribusiness sector is encouraged to access and adapt technology to improve productivity, there is some potential for the transfer or purchase of technology. The sources of this technology will be the Indian public or private sector and the U.S. private sector. In most cases the required technology is available and in many cases it is no longer proprietary in nature.

J.2 Management of IPR in the ACE Project

In the cases which do involve proprietary technology or information, the necessary commercial arrangements will be made before a loan is approved. The U.S. company will be apprised of the IPR situation in India and the attendant IPR concerns. The ACE Group in ICICI and the institutional contractor responsible for TA and T&I tours will be informed of this approach and will be responsible for identifying IPR as an essential point for consideration in any proceedings.

ICICI, through PACT, is sensitized to the importance of IPR when dealing with U.S. companies. The experiences of PACT, including the midterm evaluation, which highlighted the importance of early and thorough IPR negotiations, will be shared with the ICICI ACE Group.

J.3 Impact

The final decision of whether to participate in a commercial technology activity in India rests with the U.S. company involved. If the company feels the potential risk in India is too large, they will choose not to participate.

It is anticipated that ACE will contribute to a strengthening of the Indian private sector constituency for protection of intellectual property rights. Increasing the number of Indian firms that experience the benefits of IPR and exposure to the investment required will encourage their support of improved protection in India.

In addition, ACE will include an operational grant to a business association for agribusiness activities. The grant provides for policy studies through and on behalf of the agribusiness sector. The results of these studies will be widely distributed and act as an instrument for dialogue for regulatory and policy changes. IPR is a potential topic for study by the association.

#### J.4 AID/W Review

In a memo dated July 31, 1991 signed by the Deputy Assistant Administrator of the APRE Bureau, it was decided that USAID/India's current and future private sector projects (ACE being one) will not be submitted to the interagency IPR working group. The rationale for that decision was based on the fact that all Mission private sector projects will be designed to be implemented through a US private sector to Indian private sector focus and in all of these projects the IPR issue will be negotiated directly by the involved private sector parties. These negotiations will only take place after the parties have been appraised by the Mission of USG concerns with respect to the IPR issue and the legal status of intellectual property rights in India.

AGRICULTURAL COMMERCIALIZATION AND  
ENTERPRISE PROJECT  
(No. 386-0521)

5C(1) - COUNTRY CHECKLIST

Listed below are statutory criteria applicable to the eligibility of countries to receive the following categories of assistance: (A) both Development Assistance and Economic Support Funds; (B) Development Assistance funds only; or (C) Economic Support Funds only.

A. COUNTRY ELIGIBILITY CRITERIA APPLICABLE TO BOTH DEVELOPMENT ASSISTANCE AND ECONOMIC SUPPORT FUND ASSISTANCE

1. Narcotics

a. Negative Certification (FY 1991 Appropriations Act Sec. 559(b)): Has the President certified to the Congress that the government of the recipient country is failing to take adequate measures to prevent narcotic drugs or other controlled substances which are cultivated, produced or processed illicitly, in whole or in part, in such country or transported through such country, from being sold illegally within the jurisdiction of such country to United States Government personnel or their dependents or from entering the United States unlawfully?

b. Positive Certification (FAA Sec. 401(h)): (This provision applies to assistance of any kind provided by grant, sale, loan, lease, credit, guaranty, or insurance, except assistance from the Child Survival Fund or relating to international narcotics control, disaster and refugee relief, narcotics education and awareness, or

the provision of food or medicine.) If the recipient is a "major illicit drug producing country" (defined as a country producing during a fiscal year at least five metric tons of opium or 500 metric tons of coca or marijuana) or a "major drug-transit country" (defined as a country that is a significant direct source of illicit drugs significantly affecting the United States, through which such drugs are transported, or through which significant sums of drug-related profits are laundered with the knowledge or complicity of the government):

(1) Does the country have in place a bilateral narcotics agreement with the United States, or a multilateral narcotics agreement?

Yes

(2) Has the President in the March 1 International Narcotics Control Strategy Report (INSCR) determined and certified to the Congress (without Congressional enactment, within 45 days of continuous session, of a resolution disapproving such a certification), or has the President determined and certified to the Congress on any other date (with enactment by Congress of a resolution approving such certification), that (a) during the previous year the country has cooperated fully with the United States or taken adequate steps on its own to satisfy the goals agreed to in a bilateral narcotics agreement with the United States or in a multilateral agreement, to prevent illicit drugs produced or processed in or transported through such country from being transported into the United States, to prevent and punish drug profit laundering in the country, and to prevent and punish bribery and other forms of public corruption which facilitate production or shipment of illicit drugs or discourage prosecution of such acts, or that (b) the vital national interests of the United States require the provision of such assistance?

The certification was made in March 1991.

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c. Government Policy (1986 Anti-Drug Abuse Act Sec. 2013(b)):

(This section applies to the same categories of assistance subject to the restrictions in FAA Sec. 481(h), above.) If recipient country is a "major illicit drug producing country" or "major drug-transit country" (as defined for the purpose of FAA Sec. 481(h)), has the President submitted a report to Congress listing such country as one: (a) which, as a matter of government policy, encourages or facilitates the production or distribution of illicit drugs; (b) in which any senior official of the government engages in, encourages, or facilitates the production or distribution of illegal drugs; (c) in which any member of a U.S. Government agency has suffered or been threatened with violence inflicted by or with the complicity of any government officer; or (d) which fails to provide reasonable cooperation to lawful activities of U.S. drug enforcement agents, unless the President has provided the required certification to Congress pertaining to U.S. national interests and the drug control and criminal prosecution efforts of that country?

No

2. Indebtedness to U.S. Citizens (FAA Sec. 620(c)): If assistance is to a government, is the government indebted to any U.S. citizen for goods or services furnished or ordered where: (a) such citizen has exhausted available legal remedies; (b) the debt is not denied or contested by such government; or (c) the indebtedness arises under an unconditional guaranty of payment given by such government or controlled entity?

No

3. Seizure of U.S. Property (FAA Sec. 620(e)(1)): If assistance is to a government, has it (including any government agencies or subdivisions) taken any action which has the effect of nationalizing, expropriating, or otherwise seizing ownership or control of property of U.S. citizens or entities beneficially owned by them without taking steps to discharge its obligations toward such citizens or entities?

No

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4. Communist Countries (FAA Secs. 620(a), 620(f), 620D; FY 1991 Appropriations Act Secs. 512, 545): Is recipient country a Communist country? If so, has the President: (a) determined that assistance to the country is vital to the security of the United States, that the recipient country is not controlled by the international Communist conspiracy, and that such assistance will further promote the independence of the recipient country from international communism, or (b) removed a country from applicable restriction on assistance to Communist countries upon a determination and report to Congress that such action is important to the national interest of the United States? Will assistance be provided either directly or indirectly to Angola, Cambodia, Cuba, Iraq, Libya, Vietnam, Iran or Syria? Will assistance be provided to Afghanistan without a certification, or will assistance be provided inside Afghanistan through the Soviet-controlled government of Afghanistan?

No;

No;

N/A

5. Mob Action (FAA Sec. 620(j)): Has the country permitted or failed to take adequate measures to prevent damage or destruction by mob action of U.S. property?

No

6. OPIC Investment Guaranty (FAA Sec. 620(l)): Has the country failed to enter into an investment guaranty agreement with OPIC?

No

7. Seizure of U.S. Fishing Vessels (FAA Sec. 620(o); Fishermen's Protective Act of 1967, as amended, Sec. 5): (a) Has the country seized, or imposed any penalty or sanction against, any U.S. fishing vessel because of fishing activities in international waters? (b) If so, has any deduction required by the Fishermen's Protective Act been made?

No

8. Loan Default (FAA Sec. 620(q); FY 1991 Appropriations Act Sec. 518 (Brooke Amendment)): (a) Has the government of the recipient country been in default for more than six months on interest or principal of any loan to the country under FAA? (b) Has the country been in default for more than one year on interest or principal on any U.S. loan under a program for which the FY 1991 Appropriations Act appropriates funds?

(a) No

(b) No

9. Military Equipment (FAA Sec. 620(s)): If contemplated assistance is development loan or to come from Economic Support Fund, has the Administrator taken into account the percent of the country's budget and amount of the country's foreign exchange or other resources spent on military equipment? (Reference may be made to the annual "Taking Into Consideration" memo: "Yes taken into account by the Administrator at time of approval of Agency OYB." This approval by the Administrator of the Operational Year Budget can be the basis for an affirmative answer during the fiscal year unless significant changes in circumstances occur.)

N/A

10. Diplomatic Relations with U.S. FAA Sec. 620(l): Has the country severed diplomatic relations with the United States? If so, have relations been resumed and have new bilateral assistance agreements been negotiated and entered into since such resumption?

No

11. U.N. Obligations FAA Sec. 620(u): What is the payment status of the country's U.N. obligations? If the country is in arrears, were such arrearages taken into account by the AID Administrator in determining the current AID Operational Year Budget? (Reference may be made to the "Taking into Consideration" memo.)

India is in arrears; however, this has been taken into account by the Administrator at time of approval of Agency OYB.

12. International Terrorism

a. Sanctuary and Support

(FY 1991 Appropriations Act Sec. 556; FAA Sec. 620A): Has the country been determined by the President to: (a) grant sanctuary from prosecution to any individual or group which has committed an act of international terrorism, or (b) otherwise supports international terrorism, unless the President has waived this restriction on grounds of national security or for humanitarian reasons?

(a) No

(b) No

b. Airport Security (ISDCA of 1985 Sec. 552(b)): Has the Secretary of State determined that the country is a high terrorist threat country after the Secretary of Transportation has determined, pursuant to section 1115(e)(2) of the Federal Aviation Act of 1958, that an airport in the country does not maintain and administer effective security measures?

No

13. Discrimination (FAA Sec. 666(b)): Does the country object, on the basis of race, religion, national origin or sex, to the presence of any officer or employee of the U.S. who is present in such country to carry out economic development programs under the FAA?

No

14. Nuclear Technology (FAA Secs. 669, 670): Has the country, after August 3, 1977, delivered to any other country or received nuclear enrichment or reprocessing equipment, materials or technology, without specified arrangements or safeguards, and without special certification by the President? Has it transferred a nuclear explosive device to a non-nuclear weapon state, or if such a state, either received or detonated a nuclear explosive device? If the country is a non-nuclear weapon state, has it, on or after August 8, 1985, exported (or attempted to export) illegally from the United States any

To our knowledge, India has not delivered or received such equipment, materials or technology nor transferred a nuclear device. There is no official USG determination that India has detonated a nuclear explosive device and therefore is subject to the prohibitions of FAA Sections 669 and 670.

material, equipment, or technology which would contribute significantly to the ability of a country to manufacture a nuclear explosive device? (FAA Section 620E permits a special waiver of Section 669 for Pakistan.)

15. Algiers Meeting (ISDCA of 1981 Sec. 720): Was the country represented at the Meeting of Ministers of Foreign Affairs and Heads of Delegations of the Non-Aligned Countries to the 36th General Assembly of the U.N. on September 25 and 28, 1981, and did it fail to disassociate itself from the communique issued? If so, has the President taken it into account? (Reference may be made to the "Taking into Consideration" memo.)

India was represented at the meeting and did not dissociate itself from the communique. However, this was taken into account by the Administrator at time of approval of Agency OYB.

16. Military Coup (FY 1991 Appropriations Act Sec. 513): Has the duly elected Head of Government of the country been deposed by military coup or decree? If assistance has been terminated, has the President notified Congress that a democratically elected government has taken office prior to the resumption of assistance?

No

17. Refugee Cooperation (FY 1991 Appropriations Act Sec. 539): Does the recipient country fully cooperate with the international refugee assistance organizations, the United States, and other governments in facilitating lasting solutions to refugee situations, including resettlement without respect to race, sex, religion, or national origin?

Yes

18. Exploitation of Children (FY 1991 Appropriations Act Sec. 599D, amending FAA Sec. 116): Does the recipient government fail to take appropriate and adequate measures, within its means, to protect children from exploitation, abuse or forced conscription into military or paramilitary services?

No

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B. COUNTRY ELIGIBILITY CRITERIA APPLICABLE ONLY TO DEVELOPMENT ASSISTANCE ("DA")

1. Human Rights Violations (FAA Sec. 116): Has the Department of State determined that this government has engaged in a consistent pattern of gross violations of internationally recognized human rights? If so, can it be demonstrated that contemplated assistance will directly benefit the needy? No

2. Abortions (FY 1991 Appropriations Act Sec. 535): Has the President certified that use of DA funds by this country would violate any of the prohibitions against use of funds to pay for the performance of abortions as a method of family planning, to motivate or coerce any person to practice abortions, to pay for the performance of involuntary sterilization as a method of family planning, to coerce or provide any financial incentive to any person to undergo sterilizations, to pay for any biomedical research which relates, in whole or in part, to methods of, or the performance of, abortions or involuntary sterilization as a means of family planning? No

C. COUNTRY ELIGIBILITY CRITERIA APPLICABLE ONLY TO ECONOMIC SUPPORT FUNDS ("ESF")

1. Human Rights Violations (FAA Sec. 502B): Has it been determined that the country has engaged in a consistent pattern of gross violations of internationally recognized human rights? If so, has the President found that the country made such significant improvement in its human rights record that furnishing such assistance is in the U.S. national interest? N/A

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## 5C(2) ASSISTANCE CHECKLIST

Listed below are statutory criteria applicable to the assistance resources themselves, rather than to the eligibility of a country to receive assistance. This section is divided into three parts. Part A includes criteria applicable to both Development Assistance and Economic Support Fund resources. Part B includes criteria applicable only to Development Assistance resources. Part C includes criteria applicable only to Economic Support Funds.

CROSS REFERENCE: IS COUNTRY CHECKLIST UP-TO-DATE? Yes

### A. CRITERIA APPLICABLE TO BOTH DEVELOPMENT ASSISTANCE AND ECONOMIC SUPPORT FUNDS

#### 1. Host Country Development Efforts

(FAA Sec. 601(a)): Information and conclusions on whether assistance will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry agriculture, and commerce; and (f) strengthen free labor unions.

(a) The purpose of the Project is to assist the development of a dynamic agribusiness sector in India, including enhancement of the sector's export capability; expected project outputs include increased Indian exports which will increase the flow of international trade; (b) project activities are aimed solely at the Indian private sector; (c) project activities are not aimed at these institutions, although making available credit for agribusiness is a project objective; (d) project activities should increase the number and strength of firms active in agribusiness, thereby reducing opportunity for monopoly; (e) assistance will be provided for investment in improved agribusiness technology and linkages from farmer to exporter; and (f) no assistance is being provided for this purpose.

**2. U.S. Private Trade and Investment**

**(FAA Sec. 610(b)):** Information and conclusions on how assistance will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

Assistance under the project will foster linkages between U.S. and Indian private businesses and will finance visits by U.S. businesses to India to assess commercial opportunities.

**3. Congressional Notification**

**a. General Requirement (FY 1991 Appropriations Act Secs. 523 and 591; FAA Sec. 634A)**

If money is to be obligated for an activity not previously justified to Congress, or for an amount in excess of amount previously justified to Congress, has Congress been properly notified (unless the notification requirement has been waived because of substantial risk to human health or welfare)?

Notification concerning the Project was made to Congress in the FY 91 Congressional Presentation.

**b. Notice of New Account Obligation (FY 1991 Appropriations Act Sec. 514)**

If funds are being obligated under an appropriation account to which they were not appropriated, has the President consulted with and provided a written justification to the House and Senate Appropriations Committees and has such obligation been subject to regular notification procedures?

N/A

**c. Cash Transfers and Nonproject Sector Assistance (FY 1991 Appropriations Act Sec. 575(b)(3))**

If funds are to be made available in the form of cash transfer or nonproject sector assistance, has the Congressional notice included a detailed description of how the funds will be used, with a discussion of U.S. interests to be served and a description of any economic policy reforms to be promoted?

N/A

**4. Engineering and Financial Plans**

**(FAA Sec. 611(a)):** Prior to an obligation in excess of \$500,000, will there be: (a) engineering, financial or other plans necessary to carry out the assistance; and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?

(a), (b) - Such information is included in the Project Paper

5. Legislative Action (FAA Sec. 611(a)(2)): If legislative action is required within recipient country with respect to an obligation in excess of \$500,000, what is the basis for a reasonable expectation that such action will be completed in time to permit orderly accomplishment of the purpose of the assistance?

No such action is required

6. Water Resources (FAA Sec. 611(b); FY 1991 Appropriations Act Sec. 501): If project is for water or water-related land resource construction, have benefits and costs been computed to the extent practicable in accordance with the principles, standards, and procedures established pursuant to the Water Resources Planning Act (42 U.S.C. 1962, et seq.)? (See A.I.D. Handbook 3 for guidelines.)

N/A

7. Cash Transfer and Sector Assistance (FY 1991 Appropriations Act Sec. 575(b)): Will cash transfer or nonproject sector assistance be maintained in a separate account and not commingled with other funds (unless such requirements are waived by Congressional notice for nonproject sector assistance)?

N/A

8. Capital Assistance (FAA Sec. 611(e)): If project is capital assistance (e.g., construction), and total U.S. assistance for it will exceed \$1 million, has the Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability to maintain and utilize the project effectively?

No capital assistance will be provided under this project.

9. Multiple Country Objectives (FAA Sec. 601(a)): Information and conclusions whether project will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of, industry, agriculture and commerce; and (f) strengthen free labor unions.

See response to para 1 in this Part A.

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10. U.S. Private Trade (FAA Sec. 601(b)): Information and conclusions on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

See response to para 2 in this Part A.

11. Local Currencies

a. Recipient Contributions (FAA Secs. 612(b), 636(h)): Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized in lieu of dollars.

Private sector recipients of loans will contribute local currency in an amount equivalent to the AID-financed loan. This local currency will be used to finance local costs. AID dollars will be used primarily to finance foreign exchange costs.

b. U.S.-Owned Currency (FAA Sec. 612(d)): Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?

No

c. Separate Account (FY 1991 Appropriations Act Sec. 575): If assistance is furnished to a foreign government under arrangements which result in the generation of local currencies:

N/A

(1) Has A.I.D. (a) required that local currencies be deposited in a separate account established by the recipient government, (b) entered into an agreement with that government providing the amount of local currencies to be generated and the terms and conditions under which the currencies so deposited may be utilized, and (c) established by agreement the responsibilities of A.I.D. and that government to monitor and account for deposits into and disbursements from the separate account?

(2) Will such local currencies, or an equivalent amount of local currencies, be used only to carry out the purposes of the DA or ESF chapters of the FAA (depending on which chapter is the source of the assistance) or for the administrative requirements of the United States Government?

(3) Has A.I.D. taken all appropriate steps to ensure that the equivalent of local currencies disbursed from the separate account are used for the agreed purposes?

(4) If assistance is terminated to a country, will any unencumbered balances of funds remaining in a separate account be disposed of for purposes agreed to by the recipient government and the United States Government?

## 12. Trade Restrictions

a. Surplus Commodities (FY 1991 Appropriations Act Sec. 521(a)): If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the time the resulting productive capacity becomes operative, and is such assistance likely to cause substantial injury to U.S. producers of the same, similar or competing commodity?

The criteria which will be developed for selecting projects to receive AID financing will include a test to ensure the resulting agricultural commodity will not compete with similar U.S. exports. Since projects must be financially viable to receive assistance, the criteria for selecting recipients of assistance will ensure the resulting commodity will not be in surplus on world markets.

b. Textiles (Lautenberg Amendment) (FY 1991 Appropriations Act Sec. 521(c)): Will the assistance (except for programs in Caribbean Basin Initiative countries under U.S. Tariff Schedule "Section 807", which allows

N/A

reduced tariffs on articles assembled abroad from U.S.-made components) be used directly to procure feasibility studies, prefeasibility studies, or project profiles of potential investment in, or to assist the establishment of facilities specifically designed for, the manufacture for export to the United States or to third country markets in direct competition with U.S. exports, of textiles, apparel, footwear, handbags, flat goods (such as wallets or coin purses worn on the person), work gloves or leather wearing apparel?

13. Tropical Forests (FY 1991 Appropriations Act Sec. 533(c)(3)): Will funds be used for any program, project or activity which would (a) result in any significant loss of tropical forests, or (b) involve industrial timber extraction in primary tropical forest areas? No

14. PVO Assistance

a. Auditing and Registration (FY 1991 Appropriations Act Sec. 537): If assistance is being made available to a PVO, has that organization provided upon timely request any document, file, or record necessary to the auditing requirements of A.I.D., and is the PVO registered with A.I.D.? N/A

b. Funding Sources (FY 1991 Appropriations Act, Title II, under heading "Private and Voluntary Organizations"): If assistance is to be made to a United States PVO (other than a cooperative development organization), does it obtain at least 20 percent of its total annual funding for international activities from sources other than the United States Government? N/A

15. Project Agreement Documentation (State Authorization Sec. 139 (as interpreted by conference report)): Has confirmation of the date of signing of The aggregate amount of assistance being provided

the project agreement, including the amount involved, been cabled to State L/T and A.I.D. LEG within 60 days of the agreement's entry into force with respect to the United States, and has the full text of the agreement been pouched to those same offices? (See Handbook 3, Appendix 6G for agreements covered by this provision.)

16. Metric System (Omnibus Trade and Competitiveness Act of 1988 Sec. 5164, as interpreted by conference report, amending Metric Conversion Act of 1975 Sec. 2, and as implemented through A.I.D. policy): Does the assistance activity use the metric system of measurement in its procurements, grants, and other business-related activities, except to the extent that such use is impractical or is likely to cause significant inefficiencies or loss of markets to United States firms? Are bulk purchases usually to be made in metric and are components, sub-assemblies, and semi-fabricated materials to be specified in metric units when economically available and technically adequate? Will A.I.D. specifications use metric units of measure from the earliest programmatic stages, and from the earliest documentation of the assistance processes (for example, project papers) involving quantifiable measurements length, area, volume, capacity, mass and weight), through the implementation stage?

17. Women in Development (FY 1991 Appropriations Act, Title II under heading "Women in Development"): Will assistance be designed so that the percentage of women participants will be demonstrably increased?

is less than \$25 million; therefore, this requirement is inapplicable.

To the extent practicable, metric measurements will be used in all procurements grants and other activities under the Project.

No bulk purchases are contemplated. All commodity procurements will use metric measurements, to extent practicable and AID will also use such measurements throughout the Project.

70% of the labor force in agroprocessing is female; although ACE activities are not aimed specifically at women in development, by its involvement in a sector that employs a large number of women, it should have a significant positive impact on employment opportunities and incomes of women workers.

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18. Regional and Multilateral Assistance (FAA Sec. 209): Is assistance more efficiently and effectively provided through regional or multilateral organizations? If so, why is assistance not so provided? Information and conclusions on whether assistance will encourage developing countries to cooperate in regional development programs.

Other bilateral and multilateral donors are providing assistance for agribusiness; however, the focus of such assistance is generally limited to a particular state or enterprise or is undertaken through government entities. Given AID's interest in private agribusiness, our objectives could not be achieved through regional or multilateral organizations.

19. Abortions (FY 1991 Appropriations Act, Title II, under heading "Population, DA," and Sec. 525):

a. Will assistance be made available to any organization or program which, as determined by the President, supports or participates in the management of a program of coercive abortion or involuntary sterilization?

No

b. Will any funds be used to lobby for abortion?

No

20. Cooperatives (FAA Sec. 111): Will assistance help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward a better life?

No assistance is specifically aimed at development of cooperatives.

21. U.S.-Owned Foreign Currencies

a. Use of Currencies (FAA Secs. 612(b), 636(h); FY 1991 Appropriations Act Secs. 507, 509): Describe steps taken to assure that, to the maximum extent possible, foreign currencies owned by the U.S. are utilized in lieu of dollars to meet the cost of contractual and other services.

See response to para 11.a of this Part A.

b. Release of Currencies (FAA Sec. 612(d)): Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?

No

22. Procurement

a. Small Business (FAA Sec. 602(a)): Are there arrangements to permit U.S. small business to participate equitably in the furnishing of commodities and services financed?

Procurement opportunities will be advertised publicly including in AID publications aimed at small businesses.

b. U.S. Procurement (FAA Sec. 604(a)): Will all procurement be from the U.S. except as otherwise determined by the President or determined under delegation from him?

Yes; except as permitted by A.I.D.'s Buy America policy, procurement will be from the U.S. unless a waiver is executed.

c. Marine Insurance (FAA Sec. 604(d)): If the cooperating country discriminates against marine insurance companies authorized to do business in the U.S., will commodities be insured in the United States against marine risk with such a company?

Yes; however, there is no evidence that India discriminates against U.S. marine insurance companies.

d. Non-U.S. Agricultural Procurement (FAA Sec. 604(e)): If non-U.S. procurement of agricultural commodity or product thereof is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity? (Exception where commodity financed could not reasonably be procured in U.S.)

No agricultural commodity or product is expected to be procured.

e. Construction or Engineering Services (FAA Sec. 604(g)): Will construction or engineering services be procured from firms of advanced developing countries which are otherwise eligible under Code 941 and which have attained a competitive capability in international markets in one of these areas? (Exception for those countries which receive direct economic assistance under the FAA and permit United States firms to compete for construction or engineering services financed from assistance programs of these countries.)

To the extent engineering services are procured the nationality will be from U.S.

f. Cargo Preference Shipping (FAA Sec. 603): Is the shipping excluded from compliance with the requirement in section 901(b) of the Merchant Marine Act of 1936, as amended, that at least 50 percent of the gross tonnage of commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) financed shall be transported on privately owned U.S. flag commercial vessels to the extent such vessels are available at fair and reasonable rates?

No

g. Technical Assistance (FAA Sec. 621(a)): If technical assistance is financed, will such assistance be furnished by private enterprise on a contract basis to the fullest extent practicable? Will the facilities and resources of other Federal agencies be utilized, when they are particularly suitable, not competitive with private enterprise, and made available without undue interference with domestic programs?

Yes; Yes

h. U.S. Air Carriers (International Air Transportation Fair Competitive Practices Act, 1974): If air transportation of persons or property is financed on grant basis, will U.S. carriers be used to the extent such service is available?

Yes

i. Termination for Convenience of U.S. Government (FY 1991 Appropriations Act Sec. 504): If the U.S. Government is a party to a contract for procurement, does the contract contain a provision authorizing termination of such contract for the convenience of the United States?

Yes, such a provision will be included in all AID direct contracts.

j. Consulting Services (FY 1991 Appropriations Act Sec. 524): If assistance is for consulting service through procurement contract pursuant to 5 U.S.C. 3109, are contract expenditures a matter of public record and available for public inspection (unless otherwise provided by law or Executive order)?

Procurements of consulting services by A.I.D is not contemplated.

k. Metric Conversion (Omnibus Trade and Competitiveness Act of 1988, as interpreted by conference report, amending Metric Conversion Act of 1975 Sec. 2, and as implemented through A.I.D. policy): Does the assistance program use the metric system of measurement in its procurements, grants, and other business-related activities, except to the extent that such use is impractical or is likely to cause significant inefficiencies or loss of markets to United States firms? Are bulk purchases usually to be made in metric, and are components, sub-assemblies, and semi-fabricated materials to be specified in metric units when economically available and technically adequate? Will A.I.D. specifications use metric units of measure from the earliest programmatic stages, and from the earliest documentation of the assistance processes (for example, project papers) involving quantifiable measurements (length, area, volume, capacity, mass and weight), through the implementation stage?

Metric measurements are used to the maximum extent practicable under the USAID/India assistance program. No bulk purchases are contemplated under the project. Where measurements are included in project design documentation, such measurements are stated in metric units unless impracticable.

l. Competitive Selection Procedures (FAA Sec. 601(e)): Will the assistance utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?

Yes

23. Construction

a. Capital Project (FAA Sec. 601(d)): If capital (e.g., construction) project, will U.S. engineering and professional services be used?

The ACE Project is not a capital project.

b. Construction Contract (FAA Sec. 611(c)): If contracts for construction are to be financed, will they be let on a competitive basis to maximum extent practicable?

N/A

c. Large Projects, Congressional Approval (FAA Sec. 620(k)): If for construction of productive enterprise, will aggregate value of assistance to be furnished by the U.S. not exceed

N/A

\$100 million (except for productive enterprises in Egypt that were described in the Congressional Presentation), or does assistance have the express approval of Congress?

24. U.S. Audit Rights (FAA Sec. 301(d)): If fund is established solely by U.S. contributions and administered by an international organization, does Comptroller General have audit rights?

N/A

25. Communist Assistance (FAA Sec. 620(h)): Do arrangements exist to insure that United States foreign aid is not used in a manner which, contrary to the best interests of the United States, promotes or assists the foreign aid projects or activities of the Communist-bloc countries?

Project assistance may only be used for permissible and agreed upon uses; PILs will instruct project implementors as to prohibited uses.

26. Narcotics

a. Cash Reimbursements (FAA Sec. 483): Will arrangements preclude use of financing to make reimbursements, in the form of cash payments, to persons whose illicit drug crops are eradicated?

All assistance under the project must meet agreed upon criteria.

b. Assistance to Narcotics Traffickers (FAA Section 487): Will arrangements take "all reasonable steps" to preclude use of financing to or through individuals or entities which we know or have reason to believe have either: (1) been convicted of a violation of any law or regulation of the United States or a foreign country relating to narcotics (or other controlled substances); or (2) been an illicit trafficker in, or otherwise involved in the illicit trafficking of, any such controlled substance?

Yes, to the extent such knowledge exists.

27. Expropriation and Land Reform (FAA Sec. 620(g)): Will assistance preclude use of financing to compensate owners for expropriated or nationalized property, except to compensate foreign nationals in accordance with a land reform program certified by the President?

Yes

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28. Police and Prisons (FAA Sec. 660): Will assistance preclude use of financing to provide training, advice, or any financial support for police, prisons, or other law enforcement forces, except for narcotics programs? Yes

29. CIA Activities (FAA Sec. 662): Will assistance preclude use of financing for CIA activities? Yes

30. Motor Vehicles (FAA Sec. 636(i)): Will assistance preclude use of financing to provide for purchase, sale, long-term lease, exchange or guaranty of the sale of motor vehicles manufactured outside U.S., unless a waiver is obtained? Yes

31. Military Personnel (FY 1991 Appropriations Act Sec. 503): Will assistance preclude use of financing to pay pensions, annuities, retirement pay, or adjusted service compensation for prior or current military personnel? Yes

32. Payment of U.N. Assessments (FY 1991 Appropriations Act Sec. 505): Will assistance preclude use of financing to pay U.N. assessments, arrearages or dues? Yes

33. Multilateral Organization Lending (FY 1991 Appropriations Act Sec. 506): Will arrangements preclude use of financing to carry out provisions of FAA section 209(d) (transfer of FAA funds to multilateral organizations for lending)? Yes

34. Export of Nuclear Resources (FY 1991 Appropriations Act Sec. 510): Will assistance preclude use of financing to finance the export of nuclear equipment, fuel, or technology? Yes

35. Repression of Population (FY 1991 Appropriations Act Sec. 511): Will assistance preclude use of financing for the purpose of aiding the efforts of the government of such country to repress the legitimate rights of the population of such country contrary to the Universal Declaration of Human Rights? Yes

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36. Publicity or Propaganda (FY 1991 Appropriations Act Sec. 516): Will assistance be used for publicity or propaganda purposes designed to support or defeat legislation pending before Congress, to influence in any way the outcome of a political election in the United States, or for any publicity or propaganda purposes not authorized by Congress? No

37. Marine Insurance (FY 1991 Appropriations Act Sec. 563): Will any A.I.D. contract and solicitation, and subcontract entered into under such contract, include a clause requiring that U.S. marine insurance companies have a fair opportunity to bid for marine insurance when such insurance is necessary or appropriate? Yes

38. Exchange for Prohibited Act (FY 1991 Appropriations Act Sec. 569): Will any assistance be provided to any foreign government (including any instrumentality or agency thereof), foreign person, or United States person in exchange for that foreign government or person undertaking any action which is, if carried out by the United States Government, a United States official or employee, expressly prohibited by a provision of United States law? No

B. CRITERIA APPLICABLE TO DEVELOPMENT ASSISTANCE ONLY

1. Agricultural Exports (Bumpers Amendment) (FY 1991 Appropriations Act Sec. 521(b), as interpreted by conference report for original enactment): If assistance is for agricultural development activities (specifically, any testing or breeding feasibility study, variety improvement or introduction, consultancy, publication, conference, or training), are such activities: (1) specifically and principally designed to increase agricultural exports by the host country to a country other than the United States, where the export would lead to direct competition in that third

Although project assistance is aimed at agricultural export development, criteria for selection of assistance recipients will include determination that the particular agricultural export will not compete with a similar U.S. export and cause substantial injury to U.S. exporters.

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country with exports of a similar commodity grown or produced in the United States, and can the activities reasonably be expected to cause substantial injury to U.S. exporters of a similar agricultural commodity; or (2) in support of research that is intended primarily to benefit U.S. producers?

2. Tied Aid Credits (FY 1991 Appropriations Act, Title II, under heading "Economic Support Fund"): Will DA funds be used for tied aid credits?

No

3. Appropriate Technology (FAA Sec. 107): Is special emphasis placed on use of appropriate technology (defined as relatively smaller, cost-saving, labor-using technologies that are generally most appropriate for the small farms, small business, and small incomes of the poor)?

Target recipients of assistance under the project will be primarily medium to large size agribusiness. Private sector firms, in some cases with technical assistance, will identify technology that is financially viable in the Indian context.

4. Indigenous Needs and Resources (FAA Sec. 201(b)): Describe extent to which the activity recognizes the particular needs, desires and capacities of people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civic education and training in skills required for effective participation in governmental processes essential to self-government.

A primary objective of the project is to assist Indian private sector firms to identify and invest in the requirements to compete in the international economy. Project assistance will also support a state chamber of commerce and other activities to stimulate a policy dialogue between government and the private sector concerning agribusiness.

5. Economic Development (FAA Sec. 101(a)): Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities and self-sustaining economic growth?

Yes, this is one of the primary expected outputs from project activities.

6. Special Development Emphasis (FAA Secs. 102(b), 113, 201(a)): Describe extent to which activity will: (a) effectively involve the poor in development by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, dispersing investment from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using appropriate U.S. institutions; (b) encourage democratic private and local governmental institutions; (c) support the self-help efforts of developing countries; (d) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (e) utilize and encourage regional cooperation by developing countries.

(a) agriculture dominates the rural economy; assistance to stimulate agribusiness development and exports should have a significant positive impact on rural employment and incomes; (b) assistance will be provided to a state chamber of commerce to improve its capability and that of its members to conduct a dialogue with the government on agribusiness issues; (c) increased food (including processed food) availability for domestic and export needs will contribute to India's food security capability; (d) women are approximately 70% of the labor force in agroprocessing; therefore increased agribusiness development should have a positive impact on the employment and income of women; and (e) since the purpose of the project is specifically to enhance India's agricultural export capabilities, regional cooperation is not appropriate at this time.

7. Recipient Country Contribution (FAA Sec. 110, 124(d)): Will the recipient country provide at least 25 percent of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or is the latter cost-sharing requirement being waived for a "relatively least developed" country)?

Yes; ICICI, the implementing entity for the project and the private sector entities who will receive assistance under the project will contribute at least 25% to the project.

8. Benefit to Poor Majority (FAA Sec. 128(b)): If the activity attempts to increase the institutional capabi-

By stimulating the growth and development of

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lities of private organizations or the government of the country, or if it attempts to stimulate scientific and technological research, has it been designed and will it be monitored to ensure that the ultimate beneficiaries are the poor majority?

agribusiness, there should be increased demand for farm-level produce. The increased demand at the farm level should stimulate rural employment and incomes of the poor majority who are primarily involved in agriculture.

9. Abortions (FAA Section 104(f); FY 1991 Appropriations Act, Title II under heading "Population, DA," and Sec. 535):

a. Are any of the funds to be used for the performance of abortions as a method of family planning or to motivate or coerce any person to practice abortions?

No

b. Are any of the funds to be used to pay for the performance of involuntary sterilization as a method of family planning or to coerce or provide any financial incentive to any person to undergo sterilizations?

No

c. Are any of the funds to be made available to any organization or program which, as determined by the President, supports or participates in the management of a program of coercive abortion or involuntary sterilization?

No

d. Will funds be made available only to voluntary family planning projects which offer, either directly or through referral to, or information about access to, a broad range of family planning methods and services?

No funds are being made available for family planning project of any kind.

e. In awarding grants for natural family planning, will any applicant be discriminated against because of such applicant's religious or conscientious commitment to offer only natural family planning?

N/A

f. Are any of the funds to be used to pay for any biomedical research which relates, in whole or in part, to

No

methods of, or the performance of, abortions or involuntary sterilization as a means of family planning?

g. Are any of the funds to be made available to any organization if the President certifies that the use of these funds by such organization would violate any of the above provisions related to abortions and involuntary sterilization?

No

10. Contract Awards (FAA Sec. 601(e)): Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?

Yes

11. Disadvantaged Enterprise (FY 1991 Appropriations Act Sec. 567): What portion of the funds will be available only for activities of economically and socially disadvantaged enterprises, historically black colleges and universities, colleges and universities having a student body in which more than 40 percent of the students are Hispanic Americans, and private and voluntary organizations which are controlled by individuals who are black Americans, Hispanic Americans, or Native Americans, or who are economically or socially disadvantaged (including women)?

A specific portion of project funds have not been set aside for disadvantaged enterprises. However, the Mission will ensure that any contract in excess of \$500,000 which is financed under the project includes a requirement for 10% of the value of the contract to be subcontracted to disadvantaged enterprises unless AID regulations provide otherwise.

12. Biological Diversity (FAA Sec. 119(g)): Will the assistance: (a) support training and education efforts which improve the capacity of recipient countries to prevent loss of biological diversity; (b) be provided under a long-term agreement in which the recipient country agrees to protect ecosystems or other wildlife habitats; (c) support efforts to identify and survey ecosystems in recipient countries worthy of protection; or (d) by any direct or indirect means significantly degrade national parks or similar protected areas or introduce exotic plants or animals into such areas?

Some of the Project's activities should result in reducing ecological damage caused by agribusiness activities; however, no activities are specifically targeted to the issue of biodiversity.

13. Tropical Forests (FAA Sec. 118; FY 1991 Appropriations Act Sec. 533(c)-(e) and (g)):

a. A.I.D. Regulation 16:

Does the assistance comply with the environmental procedures set forth in A.I.D. Regulation 16?

Yes; although the Project is entitled to a categorical exclusion under 22 CFR 216.2 (c)(2)(x), a requirement is included in the Project Grant Agreement to ensure that environmental factors are considered in providing assistance under the project.

b. Conservation: Does the assistance place a high priority on conservation and sustainable management of tropical forests? Specifically, does the assistance, to the fullest extent feasible: (1) stress the importance of conserving and sustainably managing forest resources; (2) support activities which offer employment and income alternatives to those who otherwise would cause destruction and loss of forests, and help countries identify and implement alternatives to colonizing forested areas; (3) support training programs, educational efforts, and the establishment or strengthening of institutions to improve forest management; (4) help end destructive slash-and-burn agriculture by supporting stable and productive farming practices; (5) help conserve forests which have not yet been degraded by helping to increase production on lands already cleared or degraded; (6) conserve forested watersheds and rehabilitate those which have been deforested; (7) support training, research, and other actions which lead to sustainable and more environmentally sound practices for timber harvesting, removal and processing; (8) support research to expand knowledge of tropical forests and identify alternatives which will prevent forest destruction, loss, or degradation; (9) conserve biological diversity in forest areas by supporting efforts to identify, establish, and maintain a representative network of protected tropical forest eco-

Project activities are not specifically aimed at preservation of forests. However, improved farm level productivity which may result from project activities would have a beneficial impact on the conversion of forest land into farm land.

systems on a worldwide basis, by making the establishment of protected areas a condition of support for activities involving forest clearance or degradation, and by helping to identify tropical forest ecosystems and species in need of protection and establish and maintain appropriate protected areas; (10) seek to increase the awareness of U.S. government agencies and other donors of the immediate and long-term value of tropical forests; (11) utilize the resources and abilities of all relevant U.S. government agencies; (12) be based upon careful analysis of the alternatives available to achieve the best sustainable use of land; and (13) take full account of the environmental impacts of the proposed activities on biological diversity.

c. Forest Degradation: Will assistance be used for: (1) the procurement or use of logging equipment, unless an environmental assessment indicates that all timber harvesting operations involved will be conducted in an environmentally sound manner and that the proposed activity will produce positive economic benefits and sustainable forest management systems; (2) actions which will significantly degrade national parks or similar protected areas which contain tropical forests, or introduce exotic plants or animals into such areas; (3) activities which would result in the conversion of forest lands to the rearing of livestock; (4) the construction, upgrading, or maintenance of roads (including temporary haul roads for logging or other extractive industries) which pass through relatively undegraded forest lands; (5) the colonization of forest lands; or (6) the construction of dams or other water control structures which flood relatively undegraded forest lands, unless with respect to each such activity an environmental assessment indicates that the activity will contribute significantly and directly to improving the livelihood of the rural poor and will be conducted in an environmentally sound manner which supports sustainable development?

(1) No  
(2) No  
(3) No  
(4) No  
(5) No  
(6) No

d. Sustainable Forestry: If assistance relates to tropical forests, will project assist countries in developing a systematic analysis of the appropriate use of their total tropical forest resources, with the goal of developing a national program for sustainable forestry?

N/A

e. Environmental Impact

Statements: Will funds be made available in accordance with provisions of FAA Section 117(c) and applicable A.I.D. regulations requiring an environmental impact statement for activities significantly affecting the environment?

Yes, although the project is entitled to a categorical exclusion, selection criteria for assistance must include consideration of environmental factors.

14. Energy (FY 1991 Appropriations Act Sec. 533(c)): If assistance relates to energy, will such assistance focus on: (a) end-use energy efficiency, least-cost energy planning, and renewable energy resources, and (b) the key countries where assistance would have the greatest impact on reducing emissions from greenhouse gases?

N/A

15. Sub-Saharan Africa Assistance (FY 1991 Appropriations Act Sec. 562, adding a new FAA chapter 10 (FAA Sec. 496)): If assistance will come from the Sub-Saharan Africa DA account, is it: (a) to be used to help the poor majority in Sub-Saharan Africa through a process of long-term development and economic growth that is equitable, participatory, environmentally sustainable, and self-reliant; (b) to be used to promote sustained economic growth, encourage private sector development, promote individual initiatives, and help to reduce the role of central governments in areas more appropriate for the private sector; (c) to be provided in a manner that takes into account, during the planning process the local-level perspectives of the rural and urban poor, including women, through close consultation with African, United States and other PVOs that have demonstrated effectiveness in the promotion of local grassroots activities on behalf of long-term development in Sub-Saharan Africa; (d) to be implemented in a manner that

N/A

requires local people, including women, to be closely consulted and involved, if the assistance has a local focus; (e) being used primarily to promote reform of critical sectoral economic policies, or to support the critical sector priorities of agricultural production and natural resources, health, voluntary family planning services, education, and income generating opportunities; and (f) to be provided in a manner that, if policy reforms are to be effected, contains provisions to protect vulnerable groups and the environment from possible negative consequences of the reforms?

16. Debt-for-Nature Exchange (FAA Sec. 463): If project will finance a debt-for-nature exchange, describe how the exchange will support protection of: (a) the world's oceans and atmosphere, (b) animal and plant species, and (c) parks and reserves; or describe how the exchange will promote: (d) natural resource management, (e) local conservation programs, (f) conservation training programs, (g) public commitment to conservation, (h) land and ecosystem management, and (i) regenerative approaches in farming, forestry, fishing and watershed management.

N/A

17. Deobligation/Reobligation (FY 1991 Appropriations Act Sec. 515): If deob/reob authority is sought to be exercised in the provision of DA assistance, are the funds being obligated for the same general purpose, and for countries within the same region as originally obligated, and have the House and Senate Appropriations Committees been properly notified?

N/A

18. Loans

a. Repayment Capacity (FAA Sec. 122(b)): Information and conclusion on capacity of the country to repay the loan at a reasonable rate of interest.

N/A

b. Long-range Plans (FAA Sec. 122(b)): Does the activity give reasonable promise of assisting long-range plans and programs designed to develop economic resources and increase productive capacities? N/A

c. Interest Rate (FAA Sec. 122(b)): If development loan is repayable in dollars, is interest rate at least 2 percent per annum during a grace period which is not to exceed ten years, and at least 3 percent per annum thereafter? N/A

d. Exports to United States (FAA Sec. 620(d)): If assistance is for any productive enterprise which will compete with U.S. enterprises, is there an agreement by the recipient country to prevent export to the U.S. of more than 20 percent of the enterprise's annual production during the life of the loan or has the requirement to enter into such an agreement been waived by the President because of a national security interest? N/A

19. Development Objectives (FAA Secs. 102(a), 111, 113, 281(a)): Extent to which activity will: (1) effectively involve the poor in development, by expanding access to economy at local level, increasing labor-intensive production and the use of appropriate technology, spreading investment out from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using the appropriate U.S. institutions; (2) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions; (3) support the self-help efforts of developing countries; (4) promote the

See response to para 6 in this part B.

participation of women in the national economies of developing countries and the improvement of women's status; and (5) utilize and encourage regional cooperation by developing countries?

20. Agriculture, Rural Development and Nutrition, and Agricultural Research (FAA Secs. 103 and 103A):

a. Rural Poor and Small Farmers:

If assistance is being made available for agriculture, rural development or nutrition, describe extent to which activity is specifically designed to increase productivity and income of rural poor; or if assistance is being made available for agricultural research, has account been taken of the needs of small farmers, and extensive use of field testing to adapt basic research of local conditions shall be made.

See response to para 8 of this Part B.

b. Nutrition: Describe extent to which assistance is used in coordination with efforts carried out under FAA Section 104 (Population and Health) to help improve nutrition of the people of developing countries through encouragement of increased production of crops with greater nutritional value; improvement of planning, research, and education with respect to nutrition, particularly with reference to improvement and expanded use of indigenously produced foodstuffs; and the undertaking of pilot or demonstration programs explicitly addressing the problem of malnutrition of poor and vulnerable people.

Project activities are not directed specifically at nutritional issues. However, activities will include assistance to improve the quality of agricultural products for processing; this effort should have a trickle down effect on the quality of agricultural products generally available.

c. Food Security: Describe extent to which activity increases national food security by improving food policies and management and by strengthening national food reserves, with particular concern for the needs of the poor, through measures encouraging

Project activities through agribusiness industries will seek to improve the productivity and quality of agricultural production and the range of agricultural processes,

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domestic production, building national food reserves, expanding available storage facilities, reducing post harvest food losses, and improving food distribution.

including post-harvest handling and processing. These combined efforts should have a positive impact on India's food security.

21. Population and Health (FAA Secs. 104(b) and (c)): If assistance is being made available for population or health activities, describe extent to which activity emphasizes low-cost, integrated delivery systems for health, nutrition and family planning for the poorest people, with particular attention to the needs of mothers and children, using paramedicals and auxiliary medical personnel, clinics and health posts, commercial distribution systems, and other modes of community outreach.

N/A

22. Education and Human Resources Development (FAA Sec. 105): If assistance is being made available for education, public administration, or human resource development, describe (a) extent to which activity strengthens nonformal education, makes formal education more relevant, especially for rural families and urban poor, and strengthens management capability of institutions enabling the poor to participate in development; and (b) extent to which assistance provides advanced education and training of people of developing countries in such disciplines as are required for planning and implementation of public and private development activities.

N/A

23. Energy, Private Voluntary Organizations, and Selected Development Activities (FAA Sec. 106): If assistance is being made available for energy, private voluntary organizations, and selected development problems, describe extent to which activity is:

Assistance will be provided for technical cooperation and development in agribusiness.

a. concerned with data collection and analysis, the training of skilled personnel, research on and development of suitable energy sources, and pilot projects to test new methods of energy

production; and facilitative of research on and development and use of small-scale, decentralized, renewable energy sources for rural areas, emphasizing development of energy resources which are environmentally acceptable and require minimum capital investment;

b. concerned with technical cooperation and development, especially with U.S. private and voluntary, or regional and international development, organizations;

c. research into, and evaluation of, economic development processes and techniques;

d. reconstruction after natural or manmade disaster and programs of disaster preparedness;

e. for special development problems, and to enable proper utilization of infrastructure and related projects funded with earlier U.S. assistance;

f. for urban development, especially small, labor-intensive enterprises, marketing systems for small producers, and financial or other institutions to help urban poor participate in economic and social development.

C. CRITERIA APPLICABLE TO ECONOMIC SUPPORT FUNDS ONLY

1. Economic and Political Stability (FAA Sec. 531(a)): Will this assistance promote economic and political stability? To the maximum extent feasible, is this assistance consistent with the policy directions, purposes, and programs of Part I of the FAA?

N/A

2. Military Purposes (FAA Sec. 531(e)): Will this assistance be used for military or paramilitary purposes?

N/A

3. Commodity Grants/Separate Accounts (FAA Sec. 609): If commodities are to be granted so that sale proceeds will accrue to the recipient country, have Special Account (counterpart) arrangements been made? (For FY 1991, this provision is superseded by the separate account requirements of FY 1991 Appropriations Act Sec. 575(a), see 575(a)(5).)

N/A

4. Generation and Use of Local Currencies (FAA Sec. 531(d)): Will ESF funds made available for commodity import programs or other program assistance be used to generate local currencies? If so, will at least 50 percent of such local currencies be available to support activities consistent with the objectives of FAA sections 103 through 106? (For FY 1991, this provision is superseded by the separate account requirement of FY 1991 Appropriations Act Sec. 575(a), see Sec. 575(a)(5).)

N/A

5. Cash Transfer Requirements (FY 1991 Appropriations Act, Title II, under heading "Economic Support Fund," and Sec. 575 (b)): If assistance is in the form of a cash transfer:

a. Separate Account: Are all such cash payments to be maintained by the country in a separate account and not to be commingled with any other funds?

N/A

b. Local Currencies: Will all local currencies that may be generated with funds provided as a cash transfer to such a country also be deposited in a special account, and has A.I.D. entered into an agreement with that government setting forth the amount of the local currencies to be generated, the terms and conditions under which they are to be used, and the responsibilities of A.I.D. and that government to monitor and account for deposits and disbursements?

N/A

c. U.S. Government Use of Local Currencies: Will all such local currencies also be used in accordance with FAA Section 609, which requires such local currencies to be made available to the U.S. Government as the U.S. determines necessary for the requirements of the U.S. Government, and which requires the remainder to be used for programs agreed to by the U.S. Government to carry out the purposes for which new funds authorized by the FAA would themselves be available?

N/A

d. Congressional Notice: Has Congress received prior notification providing in detail how the funds will be used, including the U.S. interests that will be served by the assistance, and, as appropriate, the economic policy reforms that will be promoted by the cash transfer assistance?

N/A

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