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PROEXAG

NON-TRADITIONAL AGRICULTURAL EXPORT SUPPORT PROJECT

A MONITORING AND EVALUATION SYSTEM FOR THE NTAES PROJECT

Assignment Number: ST/87-44
Contract Number: 596-0108-C-00-6060-00

SUBMITTED TO:

Regional Office for Central America and Panama (ROCAP)
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A MONITORING AND EVALUATION SYSTEM FOR PROEXAG

A. AN EVALUATION LOGICAL FRAMEWORK

The basis for the monitoring and evaluation (M&E) system outlined in this report is the Logical Framework presented in Table 1. Table 1 is a refinement of the Logical Framework developed in a previous design clarification report*. Refinements are due to either measurement considerations, or issues raised by ROCAP in a meeting on July 21. Refinements are:

1. Provision is made among the Purpose indicators for measuring characteristics of PROEXAG clientele to make sure the project does not just "make the rich richer". Exactly how clientele will be characterized is not clear. Discussion of this issue is presented in Section C of this report.
2. Goal indicators are pared down to those that are available instead of including all that are desirable;
3. The role of the Federations is generally made more prominent.

B. A DEFINITION OF MONITORING AND EVALUATION

"Monitoring and evaluation" does not mean just collecting data. A useful definition of M&E is "examination of the past to predict and control the future". So far "examination of the past" has revealed above all a lack of clarity about: PROEXAG clientele, mechanisms for spreading and multiplying impact, and a strategy for developing the Export Federations. To say there is lack of clarity is not necessarily criticism. Clarity regarding such matters only comes after implementation is underway for a period.

ROCAP may feel that an inordinate amount of time has been spent on clarification in the above areas, instead of on M&E proper (collection of numbers). However, if one accepts a broad definition of M&E, then the design clarification work done so far IS M&E, and not just preparation for it. Also take into consideration the time and priority firms place on strategic planning and answering such questions as what is our project, what is our strategy, and who are we?

C. PROGRESS IN DESIGNING A MONITORING AND EVALUATION SYSTEM FOR PROEXAG

Progress in designing a "paper M&E system" is summarized in Table 2. In Logical Framework terms, the upper, "impact" half refers to Purpose level measurement, and the lower, "operations" half refers to Input and Output measurement. M&E for PROEXAG, like PROEXAG itself, has two components: agricultural and economic variables on the one hand, and institutional development variables on the other.

1. Export Federation information systems is the area where M&E stands the best chance of being carried out.
2. The most important area is measurement of the agricultural and economic impact of PROEXAG. Excellent paper progress had been made; real progress will depend on management interest and insistence.
3. Monitoring at the operations level of technical assistance in agricultural export is primarily a clerical task, and depends on the hiring of more clerical/research assistant help.
4. Due to lack of concrete objectives, the area of least

progress is strengthening of federations outside the information systems area.

PROEXAG's information system specialist has developed his own Logical Framework including objectives and indicators for tracking progress and impact. He feels that a project-wide M&E system should grow out of individual, team-member M&E systems. The information systems Logical Framework, preceded by steps for developing it, is presented as Section V. Perhaps the way to install project M&E is to develop LogFrames and data collection schemes for each team member, and then feed them into the whole-project summaries described below.

D. AGRICULTURAL AND ECONOMIC M&E FOR PROEXAG

Elements of the Ag/Econ component of the M&E system are:

1. ROCAP Action Plan Objectives
2. PROEXAG objectives
3. A table for summarizing structured case studies
4. Structured case studies
5. A table summarizing technical assistance and training to growers and shippers
6. A client form for PROEXAG and eventually for the Export Federations

ROCAP ACTION PLAN, AND PROEXAG OBJECTIVES

Items from the 1987 ROCAP Action Plan which refer to PROEXAG are:

- 10 new commercially viable crops in the region
- An average of two commercially viable crops per country
- Increase sales value by \$25 Million per year
- Increase investment by \$25 Million
- Decrease rejection rate from % 6 to % 2
- 10 new Channel Captains

To these 1987 Action Plan objectives, PROEXAG added the following draft objectives, also of a numerical, measurable nature.

- 3 new seaports handling 5% each of CAP's NTAE exports
- 2 deals >\$50,000 per country per year
- 3 deals <\$50,000 per country per year

Criteria for classifying PROEXAG clientele must be developed to ensure that equity, and spread objectives are met. The project cannot be considered successful if it results in export agriculture such that only "the rich get richer". Methods for doing this classification are discussed in section G of this report.

Some definition problems will have to be solved as data are collected and analyzed. MSI does not consider these problems as serious enough to stand in the way of an M & E system. They are, however, precisely the type of problem that an outside evaluation expert with responsibility for maintaining and refining the system would solve. Some definition problems are:

1. What does "commercially viable" mean? Does it include domestic revenues? Does it include a crop that was meant for export, but becomes successful as a domestic crop instead? Commercial viability will probably be determined by a composite of indicators (volume, value, market growth potential, etc.) rather than just one.
2. What should be included under investment? Working capital or only capital investment? Investment that would be made in domestic farming, or only investment dedicated to export? In practice, emphasis will probably be on fixed

investment, i.e. processing equipment because it is the most practical measure.

3. What is a channel captain? merely a successful exporter, or must he also produce export sales, and profits for others?

4. What should be included under employment generation? Only new employment, or does diverted employment count too? How do you count and compare seasonal and permanent employment?

A TABLE FOR SUMMARIZING STRUCTURED CASE STUDIES USING INDICATORS FROM THE LOGICAL FRAMEWORK.

The consensus of the PROEXAG team, and working hypothesis here, is that the individual commodity is the most manageable, comprehensive unit of analysis available. Each commodity is a subproject which climbs the same Logical Framework as the entire project except in microcosm.

Table 3 lists the variables and data sources to be covered by structured case studies, and a table summarizing them. The topics in the case studies, measured in as quantitative a fashion as possible, are Purpose indicators from the Logical Framework. The systematized case study approach does not pretend to a high degree of rigor. Data collected is that used by project professionals in the course of their work. Professionals in the ag export business operate using "educated guesses" (with an emphasis on "educated"). Table 3 presents a first approximation of the basis for the "educated guesses". When and if a standardized methodology for the case studies evolves, it might be taught to selected federation personnel, who can then be enlisted in data collection.

Table 4 shows how a total project progress report in agricultural and economic areas might be constructed by synthesizing across parallel LogFrame levels for all commodities assisted by the project. Table 5 presents a sample case study.

The sample covered in the table should eventually amount to between 100 and 300 cases. If such a long list is compatible with the need to prioritize, there should be approximately ten crops per country in each of five countries, and between two and five growers and shippers covered by case studies for each of the crops. Case studies are written about those growers and shippers with whom the project has the closest contact. The table will present an underestimate of project impact, since the project will effect many more than those about whom case studies are written.

Data access is eased by the smallness of the export agriculture industry where much production and export information is public or common knowledge. The "production template", to be offered as a service by the project and then by the federations, as a service may improve data quality. The template uses farmer's data to calculate their production costs, and is of use to farmers only to the extent that they submit accurate data.

Baseline data on case subjects will be limited to observation, memory, and trends during the project. Attribution of NTAE progress to PROEXAG will only be possible by anecdote and logic, since there will neither be a rigorous baseline, nor control groups. Auxiliary data for augmenting the case studies, and perhaps testing hypotheses generated by them are: PIERS, DATEX in Guatemala and its analogues in other CAP countries, and the USDA office in Miami partially funded by ROCAP.

SUMMARY OF TECHNICAL ASSISTANCE AND TRAINING TO GROWERS AND SHIPPERS

The case studies cover the ag/econ impact (Purpose) for PROEXAG.

Operational (Output/Input) areas will be covered by a summary table similar to Table 6. Tabs and cross tabs in the table, and the supporting filing system, are: technical assistance, training, crops, countries, skill or problem addressed, relation of participants to the federation, number of participants, and PROEXAC resources expended. This table, and the files which support it, require a research assistant to be hired by the project.

E. MONITORING AND EVALUATION OF INSTITUTIONAL STRENGTHENING

Areas of institutional strengthening, ordered according to progress in developing M&E systems, are:

Market related information systems within the federations

New and expanded access to ports and markets

Improvements in CAP and US policies, procedures and services

Strengthening of federations in offering and leveraging training and technical assistance, lobbying, and matchmaking;

M&E tools for the "federation information systems" component is covered in Section IV of this report. "New and expanded access to ports and markets" is covered by items 6 and 7 in the commodity-based case studies. "Improvements in CAP and US policies, procedures and services" should be easy to follow without a formal system. The latter area would definitely profit from objective setting. What CAP and US policies, procedures and services need improvement if NTAE is to increase?

STRENGTHENING OF FEDERATION CAPABILITY OUTSIDE THE INFORMATION AREA

Objective setting regarding topics outside the "federation information systems" have not been developed sufficiently to allow detailed design of M&E systems. M&E regarding strengthening outside the information systems area must take account of two observations.

- 1) When asked what their objectives or training needs are, the Federations apparently ask in return "What are you offering?"
- 2) The different federations have different potentials and aspirations.

In the face of the above fluid situation, the ideal procedure of setting objectives, developing indicators, and then collecting will not work. Instead, M&E must use the training and technical assistance that is given as the starting point. For the time being, until objectives evolve, M&E must analyze the training and technical assistance that is offered the federations, and design measures of competence and utility.

Tables 10 through 15 show instruments developed by PROEXAC to measure knowledge acquired from computer courses, and satisfaction with training in general. The before/after test of computer knowledge acquired shows impressive progress. Training courses of over several days duration will generally be evaluated using a paper and pencil test. Tables 10 and 11 show instruments used to characterize computer experience of federation personnel, and the agricultural export background of growers and shippers. The latter needs to be more complete to cover some of the agricultural and economic variables measured in Tables 3 and 4.

POSSIBLE OBJECTIVES AND M&E FOR THE EXPORT FEDERATIONS

The PROEXAG team has posited the logical federation role, outside information services, to be in:

Leveraging (contracting, hiring, coordinating) training and technical assistance in production post-harvest, transport, and marketing practices;

Match-making between buyers and sellers;

Lobbying to improve CAP policies, procedures and services regarding NTAE; and

Financial technical assistance.

ROCAP correctly observes that although these areas seem logical, emphasis on them will be worth little without a corresponding Federation interest. PROEXAG must immediately find out if Federations agree with the above role, or try to sell them on it.

If the above "brokerage" role for the Federations is valid, then "capacity" would seem to consist of: 1) staff literacy, 2) staff ability to advise; 3) Federation possession of literature; 4) Federation access to literature; and 5) Federation access to organizations and experts in the following areas.

a. NTAE industry structure (crop types, markets, ports, comparative advantages), conduct and performance (volume and value, with trends from country behavior)

b. Sources and procedures for leveraging and contracting training and technical assistance

c. Sources and procedures for obtaining credit and other financial assistance

d. Regulatory and political environments in CAP and the US for NTAE

e. Initiating and consummating business relationships

M&E regarding the above would consist of:

A written test of "agricultural export literacy" covering the topics in Table 7. This test might serve as informal certification of federation employees as export agents;

Federation response to simulated practical problems in match-making, technical assistance, and training, etc.

Federation files showing prompt and successful resolution to problems in match-making, technical assistance, etc.

A catalogue of information and human resources available to the federations.

An additional concern is the socio-economic class of federation members. Is a wide spectrum represented? Or do the members correspond to USAID's broad constituency?

F. INNOVATION DIFFUSION AND CLASSIFICATION OF PROEXAG CLIENTELE

Due to their technical sophistication, farm-size, and access to resources, wealthy growers and shippers are more likely exporters than are poor ones. However PROEXAG will not have succeeded if it only makes the rich richer. Therefore measures of "equity" and "spread" must be incorporated into PROEXAG's M&E system. Indicators which merely measure amounts of exports, sales, and

investment are not sufficient.

One way to shed light on equity and spread of impact is to characterize PROEXAG clientele. In this section, an attempt is made to apply "innovation diffusion concepts to PROEXAG clientele. Socio-economic class is correlated with "innovation diffusion categories" and should be treated along with it. Other, perhaps more straight-forward, measures of "equity and spread" might be: employment generation, farm size, formation of growers associations at the crop or regional level.

A body of research which may help us is "innovation adaptation and diffusion" summarized in a series of texts by Dr. Everett Rogers formerly of Stanford University, and now of the University of Southern California. PROEXAG is a sociological project as well as an agricultural export project, and should be willing to use and think in sociological terms when necessary. Tables 3a through 3e convey some of the major concepts and findings in "innovation research diffusion". The work on innovation focuses our attention on the spread of PROEXAG impact, and provides an area which might interest Export Federations. If so, "innovation diffusion" might be subject matter for training of federation personnel.

Table 3 presents an adaptation of the innovation diffusion concepts as a classification system for PROEXAG clientele. Note that the various groups are divided as to whether they will be effected at the Purpose ("critical mass") level of the project, or at the Goal level (sustained, spread) level.

There seem to be three basic components for classifying PROEXAG clientele according to their readiness to innovate in the direction of export agriculture:

1. exportable crop;
2. production and harvest practices; and
3. access to marketing and transport mechanisms.

The more components that need improving, the more difficult the task of arriving at a viable export on the one hand; and the more likely you will be reaching someone who is not already rich on the other.

Table 3 shows that the easiest client to help is one strong in all three areas, who needs simply to expand markets to increase exports. Group A might be "channel captains". An exclusive focus on these people would produce quick easy results, but would not produce widespread impact on the economy, and would be elitest.

The remainder of PROEXAG's direct clientele (the "critical mass" of participants in agricultural export" mentioned in the LogFrame) might consist of people where there is only one component that needs improvement (Group B).

PROEXAG beneficiaries encompass more than the "critical mass". They include people who participate in, and benefit from agricultural export after the end of the project. These beneficiaries may include people where more than two components need shoring up (Group C).

G. HOW TO DO AN INDIVIDUAL LOGICAL FRAMEWORK

The information systems Logical Framework is presented as Table 9. The steps the information system specialist went through to arrive at his own Logical Framework are as follows:

GOAL AND PURPOSE NARRATIVE SUMMARIES

1. Copy the Goal and Purpose Narrative Summaries,

GOAL AND PURPOSE OBJECTIVELY VERIFIABLE INDICATORS

2. Copy the Goal indicators as they are from the project Logical Framework.

3. Choose only those Purpose indicators which you can influence, and which signify success to you personally.

In the case of the Information Systems specialist, the appropriate Purpose indicator is:

3a. Export Federation Service Use

1. Information services

a. Number of users

b. Services used

c. Type of user (crop, socio-economic class, position of innovation continuum)

OUTPUTS

4. Choose the Output category which is your responsibility.

In the case of the Information Systems specialist, the appropriate Output is:

"Hardware, software and orgware within Export Federations capable of the analysis, storage, and communication of market related information."

5. Parse out each element of your Output category, and define each one in measurable terms. Conceptually, the above Output category might parse as a 3x3 matrix with hardware, software and orgware along the vertical; and storage, analysis and communication along the horizontal.

OBJECTIVELY VERIFIABLE INDICATORS (OVIS) AT THE OUTPUT LEVEL

6. For each sub-Output (or cell in the above matrix) devise an indicator of satisfactory completion. In this case, the indicators are on-site tests of hardware, software, and orgware functioning.

INPUTS (-ACTIVITIES)

5. Choose the Input category which corresponds to the above Output. For each Sub-output list the major activities for achievement.

INPUT OVIS

6. Then estimate the time and resources necessary to carry out the activity.

FRDEXAG MONITORING AND EVALUATION LOGFRAME

GOALS

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE	MEANS OF VERIFICATION																				
Sustained increase and diversity throughout Central America and Panama of NTAE production, sales, markets, investments and economic benefits	1. Volume of NTAE 2. Variety of NTAE (10 new viable crops) 3. Variety of destination ports (3 new ports, 5% each) 4. Rejection rate (6% -> 2%)	-FIERS -USDA																				
Increased, diversified and sustainable NTAE production and sales by a critical mass of Central American and Panamanian participants in export agriculture.	1. <u>Increased</u> NTAE a. Sales (10 new viable crops) b. Losses avoided (up \$25m/yr.) c. Production d. Acceptance 2. <u>Diversified</u> NTAE a. Export production b. Markets, ports (3 new ports, 5% ea) 3. <u>Sustainable</u> NTAE - Institutional Strength a. Export Federation service use - Market information #, S-E class - Training, T.A. Use, decisions b. Business entities, relationships (10 @ >\$50k/yr) -Created -Expanded (15 @ <\$50k/yr) c. Improvements in policies, procedures, services - CAP - U.S. 4. <u>Critical Mass</u> - FRDEXAG clientele a. 50 channel captains, 500 growers? b. Socio-economic range c. Innovation diffusion	-Case study summaries -Case study summaries -Federation Records? -Case Studies																				
I. Functioning Market related information systems within Export Federations.	<table border="1"> <thead> <tr> <th></th> <th>Storage</th> <th>Analysis</th> <th>Communications</th> </tr> </thead> <tbody> <tr> <td>Hardware:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Software:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Orgware:</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Storage	Analysis	Communications	Hardware:				Software:				Orgware:				Inventories Tests Exams Certification				
	Storage	Analysis	Communications																			
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Orgware:																						
II. Federation capability to deliver T.A., Training, Matchmaking, Lobbying	<table border="1"> <thead> <tr> <th></th> <th>Direct</th> <th>Leveraged</th> </tr> </thead> <tbody> <tr> <td>Training:</td> <td></td> <td></td> </tr> <tr> <td>T.A.:</td> <td>Staff</td> <td>Information</td> </tr> <tr> <td>Matchmaking:</td> <td>Skills</td> <td>Access</td> </tr> <tr> <td>Lobbying:</td> <td></td> <td>Mechanisms</td> </tr> </tbody> </table>		Direct	Leveraged	Training:			T.A.:	Staff	Information	Matchmaking:	Skills	Access	Lobbying:		Mechanisms	Inventories Tests Exams Certification					
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T.A.:	Staff	Information																				
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Lobbying:		Mechanisms																				
III. Improved grower and shipper practices in production, post-harvest, and marketing	<table border="1"> <thead> <tr> <th></th> <th>#s</th> <th>Commodity</th> <th>Acceptance</th> </tr> </thead> <tbody> <tr> <td>Production:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Post-harvest:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Marketing:</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		#s	Commodity	Acceptance	Production:				Post-harvest:				Marketing:				Field Observation, Check-lists				
	#s	Commodity	Acceptance																			
Production:																						
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IV. Identification and pursuit of business opportunities	<table border="1"> <thead> <tr> <th>Commodity</th> <th>Producer</th> <th>Markets</th> <th>Volume</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>Existing</td> <td>Expand</td> <td>Estimates</td> <td></td> </tr> <tr> <td></td> <td>New</td> <td>New</td> <td></td> <td></td> </tr> </tbody> </table>	Commodity	Producer	Markets	Volume	Value							Existing	Expand	Estimates			New	New			
Commodity	Producer	Markets	Volume	Value																		
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V. Lobbying to improve policies, procedures, services	<table border="1"> <thead> <tr> <th></th> <th>Problem</th> <th>Solution</th> <th>Progress</th> </tr> </thead> <tbody> <tr> <td>CAP:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>U.S.:</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Problem	Solution	Progress	CAP:				U.S.:												
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VI. Analysis, Studies A. Comparative Advantage B. Production costs C. Federation needs	<table border="1"> <thead> <tr> <th></th> <th>Findings</th> <th>Implications</th> </tr> </thead> <tbody> <tr> <td>A:</td> <td></td> <td></td> </tr> <tr> <td>B:</td> <td></td> <td></td> </tr> <tr> <td>C:</td> <td></td> <td></td> </tr> </tbody> </table>		Findings	Implications	A:			B:			C:											
	Findings	Implications																				
A:																						
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TABLE 2

M&E STATUS

	<u>Agricultural and Economic Development</u>		<u>Institutional Strengthening</u>		
Impact	<ul style="list-style-type: none"> - Paper System - Management Insistence Necessary 		<ul style="list-style-type: none"> Information System - Promising - Needs Federation Collaboration 		<ul style="list-style-type: none"> - Unclear Objectives
Operations	<u>I.A.</u> Lacks -Filing System -Clerical Staff	<u>Training</u> Not results oriented	Strong	<ul style="list-style-type: none"> - Unclear Program 	

9'

TABLE 3
CLASSIFICATION OF PROEXAG CLIENTELE

Exportable Crop	Practices			Export Mechanisms		PROEXAG Focus	Logframe Level	Innovation Adaption
	Prod- uction	Post Harvest	Marketing	Information	Transport			
91	+				+	Expand or change markets	Channel Capain (Purpose)	Early (...)
92	+					Export mechanisms	Critical	Early
93	+				+	Production, Post-harvest	Mass	Majority
94					+	Exportable Crop	(Purpose)	(Middle Class)
95	+					Practices + Mechanisms	Sustained	Late
96					+	Crops + Mechanisms	Spread	Majority
97						Crops + Practices	(Goal)	
98								Laggards

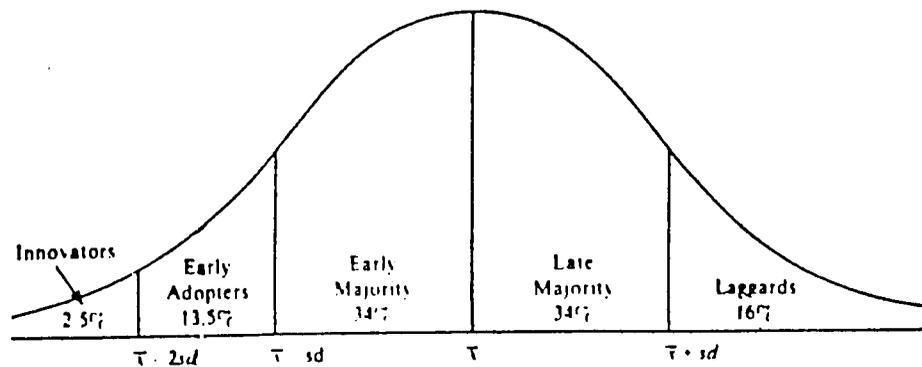


Figure 3a Adopter categorization on the basis of innovativeness.

The innovativeness dimension, as measured by the time at which an individual adopts an innovation or innovations, is continuous. This variable, however, may be partitioned into five adopter categories by laying off standard deviations from the average time of adoption.

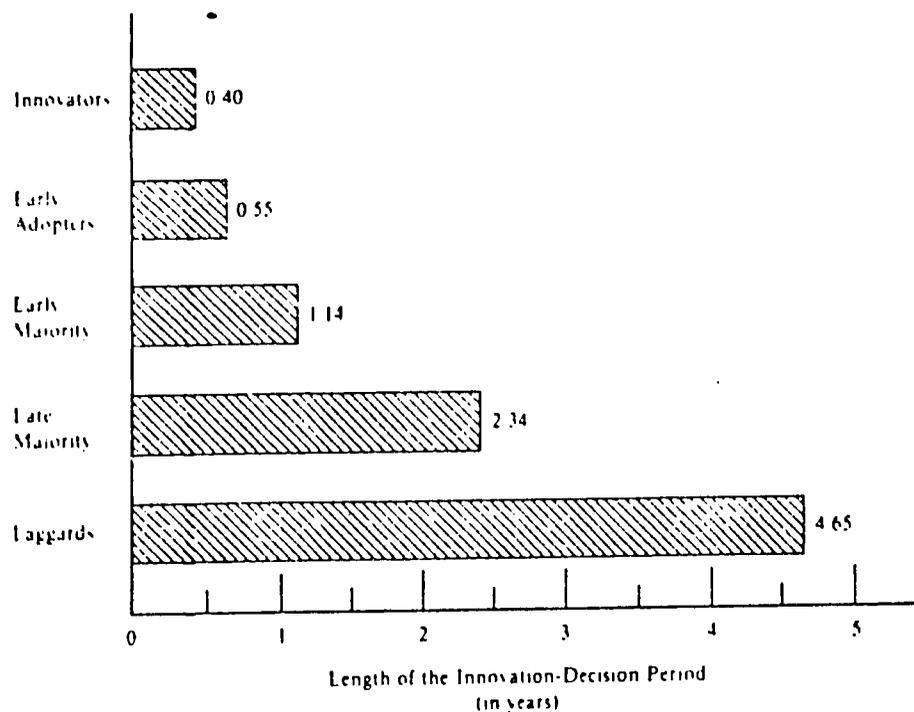


Figure 3b Innovators have shorter innovation-decision periods than laggards.

Source: Beal and Rogers (1960, p. 14), used by permission.

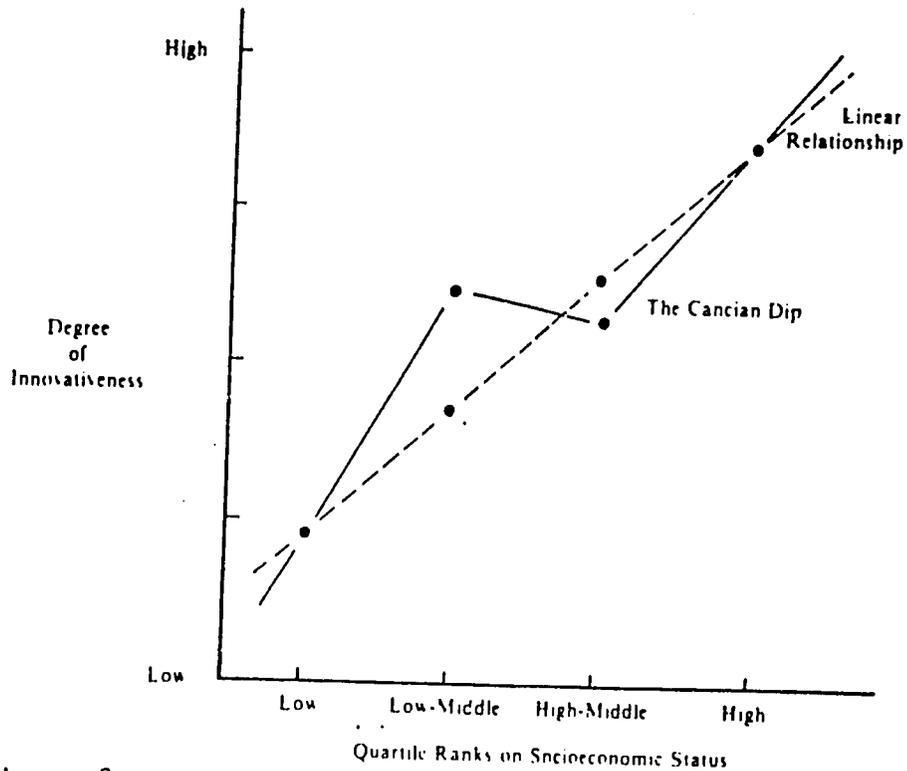


Figure 3c A linear relationship between innovativeness and various measures of socioeconomic status has generally been assumed in past research but reanalyses of these data suggest that the "Cancian Dip" may sometimes be present, in which low-middle individuals are more innovative than high-middle individuals, at least in the early phase of the diffusion process.

Professor Frank Cancian proposed a nonlinear theory of innovativeness and socioeconomic status, in which low-middle individuals are more innovative than high-middle individuals because they stand to gain more and to lose less by such innovativeness. There is some support for the "Cancian dip" hypothesis although there is also a good deal of contradictory evidence.

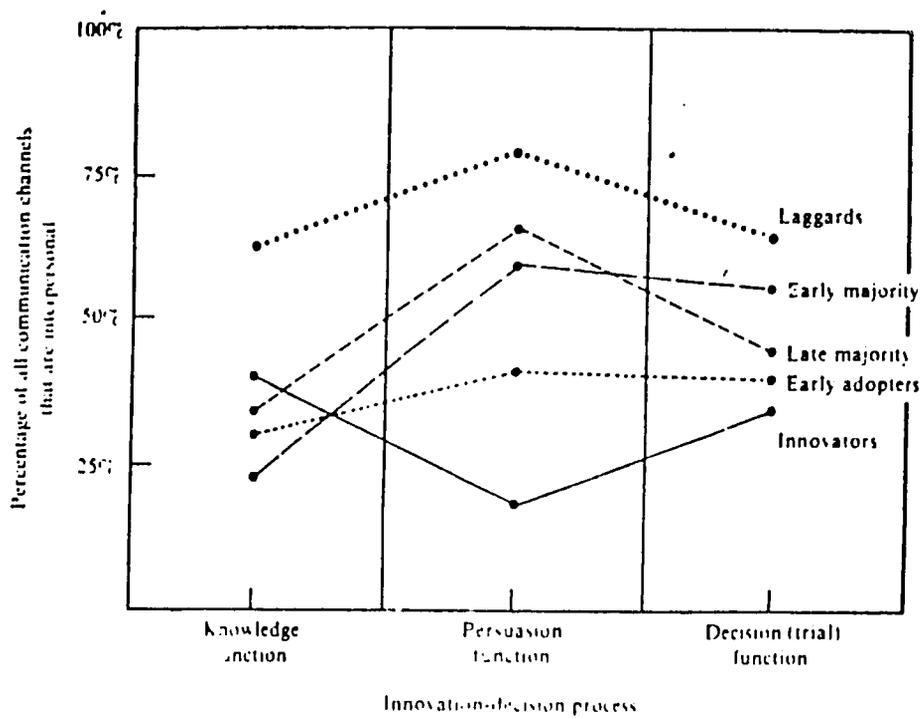


Figure 3d Interpersonal channels are relatively less important for earlier adopters than for later adopters of 2,4-D weed spray in Iowa.

Source: Beal and Rogers (1960, p. 19), used by permission.

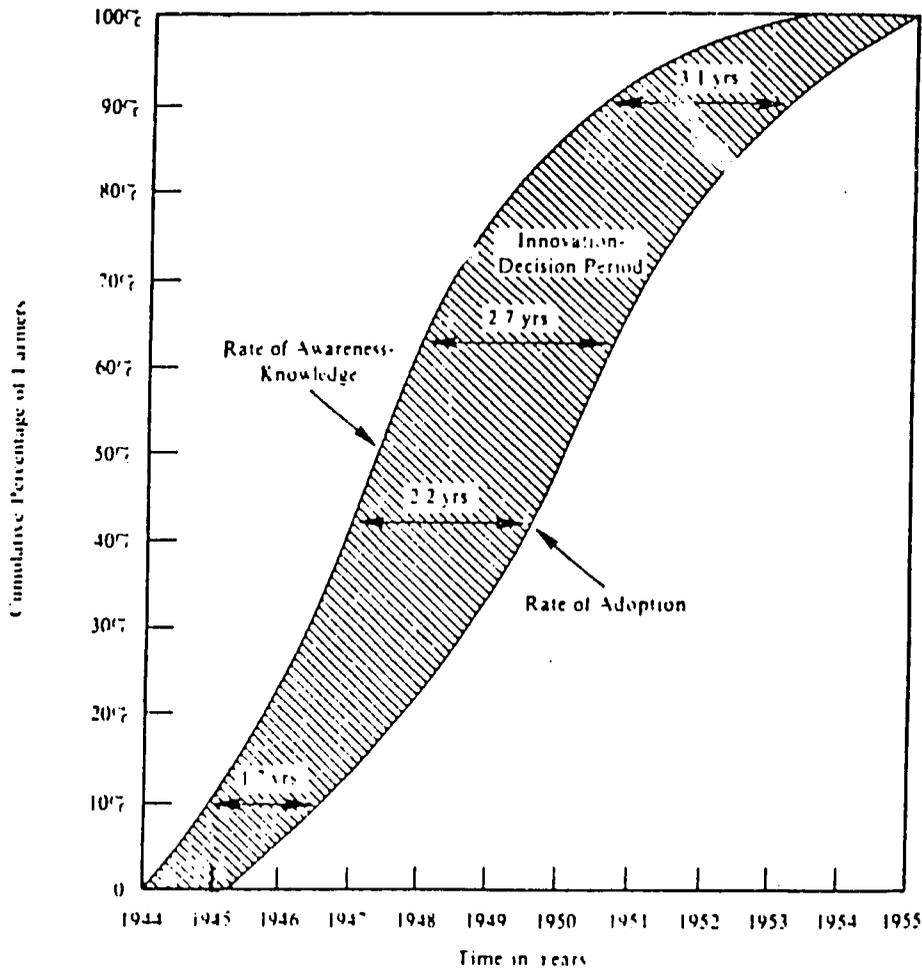


Figure 3e Rate of awareness-knowledge, rate of adoption, and length of the innovation-decision period for Iowa farmers adopting a weed spray by year.

The shaded area in this figure illustrates the aggregate innovation-decision period between awareness-knowledge and adoption of a weed spray. Knowledge proceeds at a more rapid rate than does adoption. This suggests that relatively later adopters have a longer average innovation-decision period than earlier adopters. For example, there are 1.7 years between 10 percent awareness and 10 percent adoption, but 3.1 years between 92 percent awareness and 92 percent adoption.

Source: A reanalysis of data originally gathered by Beal and Rogers (1960, p. 8), and used by permission.

TABLE 4

AGRICULTURAL AND ECONOMIC VARIABLES AND DATA SOURCES

Data sources for variables are in parenthesis. Many variables are composites of simpler variables. Data sources are not repeated after they appear once in the list.

A. Background Data

1. How were the crop and the project participant selected?
2. What is the participant's relationship to the national Export Federation?
3. Describe the participants socio-economic class, farm size, previous participation in exports, level of production, post-harvest, and marketing sophistication. This area needs development.

B. Agricultural and Economic Variables

1. Cross profits, and perhaps profit margins:
Export volume (public record, DATED, PIERS, etc.) times market price (talk to buyers) minus production costs (production cost template).
Size of the product must be taken into account.
Direct collection of profit and margin data is impossible because people won't tell you or don't know.
2. Export sales: Export volume market price.
3. Rejection rates: Classify by point rejected: farm-gate, packing shed, shipping wharf, receiver wharf, USDA, customer's (anecdote augmented by USDA, and claims).
4. Losses avoided: Emphasis is on the impact of post-harvest practices, classify by point where losses are avoided, try to quantify in monetary terms (Anecdotes),
5. New and expanded markets: (Conversation with exporters, receivers, difficult because it is not always known where product goes after arriving at a port)
6. New and expanded port use: Public record (PIERS?) conversations with exporters, receivers, much more dependable than expanded markets).

7. New and expanded export modes: (Conversations with exporters, transporters).
8. Wages: (Extrapolate from employment type and going wages: management, skilled, unskilled, budgets, applications for credit).
9. Employment: A definition will evolve. Distinction must be made among new, diverted, seasonal, and permanent employment, and employment type: management, skilled, and unskilled. (Interviews, observation, acreage, applications for credit, budgets).
10. Export Volume: (PIERS, DATEX etc., conversations with exporters).
11. Export Variety: (Observation, PIERS, DATEX etc.)
12. Post Harvest Practices: (Observation, check-list).
13. Production: Acreage under cultivation times productivity (observation, budgets, credit applications).
14. Production Practices: Check list (Observation).
15. Deals consummated: Amounts, terms, nature, establishment of long term relationships, joint ventures (sales documents, interviews with sellers and buyers).
16. Solicitations and bids conducted: terms, bids, results, problems (conversations with sellers, buyers).
17. Summary of technical assistance and training offered.

TABLE 5

COMMODITIES BY LOGFRAME TABLE

	Fruit	Vegetables	Ornamentals	Spices	Other	Total
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-
1. Profits and margins
 2. Sales
 3. Rejection rate
 4. Losses avoided
 5. New and expanded markets
 6. New and expanded port use
 7. New and expanded transport modes
 8. Wages
 9. Employment
 10. Investments
 11. Export volume, value
 12. Export variety
 13. Post harvest practices
 14. Production; variety, quality, practices
 15. Deals consumated
- Baseline = memory and records of case study and subjects
16. Technical Assistance
 - PROEXAG resources' training
 - Participants
 - Number
 - Time each?

TABLE 6

A MODEL COMMODITY (OR DEAL) BASED PROGRESS REPORT

A. PROCESS FOR SELECTION

1. Contact with Ricardo Alfaro came through personal contact with JGS. Alfaro indicated that he was interested in contacting a third (new) distributor for his melons who would concentrate on western U.S. distribution and receive the product through the port of New Orleans.
2. David Mendel was advised by Field Office to contact four firms in California as possible connections for Alfaro. Among the firms contacted was George Lindemann and Turlock Fruit.

B. INPUTS/ACTIVITIES

Technical Assistance

For Alfaro: Alfaro consulted with the field team on how to construct the deal, and how to set up and conduct a solicitation.

For potential buyers: Lindemann was given a full briefing on the melon source picture in Central America. Turlock Fruit was briefed on specific developments in El Salvador. Chemonics home office provided both firms with all the information required to contact Alfaro, and to facilitate their travel. Alfaro was apprised of all developments. After Alfaro chose Lindemann (see below) they were given an on-the-spot introduction to key firms and oriented to port proceedings in New Orleans and South Florida by Pamela Michel.

C. OUTPUTS

Opportunities and Potential Matches Identified

Four firms responded to the request for bids, two expressed interest by visiting CAP, and Lindemann was chosen. Several transport alternatives were examined, and Sealand was chosen.

D. PURPOSE

Consummated Deals (Results of the Matchmaking)

A sales agreement between Lindemann and Alfaro signed in March, 1987. Lindemann agreed to sell 30 containers for Alfaro over the rest of the season, which is 15% of Alfaro's production.

New Markets, Ports, Receivers, Transporters

California market, New Orleans port, Sealand Lines

Losses Avoided, Money and Time Saved

Long term costs of importer (Lindemann) may have been cut by years. You can spend a lot of time just learning the fundamentals.

NTAE Production, Employment

There has been no impact yet, but there may be next growing season.

NTAE Exports

So far, two trial loads have been sent via New Orleans. There were a few crushed melons and mislabeled boxes on this trial run.

Export Sales

F.O.B. 30 containers at \$7,000 each = \$210,000 net for Alfaro.
\$400,000 at U.S. end = \$40,000 commission for Lindemann.

E. PROBLEMS

The losing bidder was not happy.

F. LESSONS

Precedents set in the areas of markets and ports are an important impact category.

Losses avoided is an important impact category.

Import leaders in the U.S., and technical assistance for them, are as important as export leaders in CAP.

Effort and resources spent on the U.S. market side are an important component of the project if it is to succeed.

Technical assistance in selecting partners is critical. Perhaps it needs to be systematized and have training materials built around it.

TABLE 7

SUMMARY OF TECHNICAL ASSISTANCE TO GROWERS/SHIPPERS

	Production	Post-Harvest <u>Skills</u>	Marketing	Totals
Vegetables				
Fruit				
Ornamentals				
Spices				
Other				
Total				

- # Participants
- Time each day
- FROEXAG resources

TABLE 0:
TENTATIVE EXPORT FEDERATION: STRENGTHENING PROGRAM
Training Curriculum, Knowledge Test, Library Inventory, Roledex
Test, etc.

Overview of the NTAE Industry

- o Commodity types and forms of presentation;
- o Market windows and how to identify them;
- o Major markets and market clusters, how to access them, their tastes and preferences;
- o Comparative advantages of CAP and of major competitors;
- o Major transportation modes, transporters and receivers, how to deal with them and contract them; and
- o Major problems and solutions in the following areas: production, post-harvest, transport and marketing.

Leveraging of Training and Technical Assistance

Training and technical assistance resources available in CAP and the U.S., and how to contact and contract them.

The Regulatory and Political Environment

- o CAP laws, policies, procedures, and regulations, and problems for NTAE caused by them; and
- o U.S. laws, policies, procedures, and regulations, and problems for NTAE caused by them;

Dealmaking

- o Procedures for CAP exporters to choose among potential receivers, agents, or joint venture partners;
- o The structuring of NTAE deals; and
- o Financial institutions capable of supporting NTAE business activity, their requirements, and how to fill out their forms.

Information Management Capacity

- o Computer literacy, and specific computer and telecommunications skills;

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