EVALUATION OF
THE UNIVERSITY AGRIBUSINESS PARTNERSHIP PROJECT

(No. 517-0243)

Submitted to:

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EXECUTIVE SUMMARY

1. Project Purpose.

The goal of the University Agribusiness Partnership Project is to increase non-traditional commodity based rural incomes in the Dominican Republic, by developing mid-level trained professionals in non-traditional agriculture and agribusiness administration through teaching and training of full-time and short-term students at the Instituto Superior de Agricultura (ISA). ISA is assisted by a seven-year technical assistance grant to the Midwest Universities for International Activities consortium (MUCIA).

2. The Purpose of the Evaluation

The purpose of this evaluation was to determine the progress made by ISA, the grant recipient, and MUCIA, the contractor, in carrying out the objectives of the Project (No. 517-0243). The procedure followed in carrying out this evaluation was to 1) review relevant project and Mission documentation; 2) conduct interviews with ISA, MUCIA, and local farmers and business representatives; 3) visit the campus of ISA and surrounding businesses and farms in the Santiago area and the Development Office in Santo Domingo; 6) and to interview the Rector and MUCIA staff at Ohio State University.

3. Findings

The principal findings showed that, with respect to the overall goal statement, the development of non-traditional crop and commodity production over the last several years contributed to increased rural incomes and ISA played a major role in this transition. Every enterprise that was interviewed indicated that they had employees who were trained at ISA. In addition, the farmers who met with the evaluator expressed recognition for the value of the training offered by ISA, especially with respect to the control of the white fly. However, more effort to stimulate the non-traditional sector could have even greater impact on rural incomes, and in this light, ISA holds a unique position in the development community because few institutions are strategically situated with regard to this objective and with the built in capacity that has now been generated at ISA.

To satisfy the Project's purpose, ISA prepares degree candidates and technicians on a full-time curriculum basis, as well as several thousand students each year through short courses and workshops at CADER. Although enrollment on a national scale in agricultural curriculum is declining, ISA has been able to hold its own with full-time students and significantly increase its short course offerings and attendees. Nevertheless, ISA must increase its recruitment efforts to justify the relatively high cost for full-time students.

Management capacity and skill levels at ISA and CADER have improved significantly over the course of the Project, in several ways. Technical assistance has been used to revise

and update the accounting, procurement and performance evaluation system. A computerized accounting and budgeting system is in place. In addition, the Rector has just left for Ohio State University for administrative training and the director of CADER is programmed for external training (INCAE) early next year. Other staff have already completed training or are scheduled for later next year. Presently, salaries have been adjusted to compete with the private sector, and to give incentives for attracting financing for research and consulting activities. The plant and facilities maintenance program has also been improved, the cafeterias consolidated, student housing and facilities improved and the hotel facilities placed under modern management with a hotel administration specialist.

The Endowment Fund has reached RD$35 million, over half of its goal, with an average earnings rate of 20 percent, which provides RD$7 million annually to core financing of ISA. The Development Office is now staffed and is expected to improve the fund raising effort for the Endowment and in developing a mechanism for identifying grants for research and consultancies and acting as a liaison office in Santo Domingo for all of ISA's needs.

One major area of concern remains the production units within the University, as to their status vis a vis modern management. Although opportunities exist for developing these units as "income generating" activities, only three are currently operating to produce revenues--the hotel management unit, the conference center, and the new contract for the bakery. With the installation of irrigation the University farm is expected to turn a profit, and analyses are being made to find solutions for the other facilities. The soils laboratory does not appear to be viable for the private sector.

Perhaps the key issue is the demand for training at ISA. An aggressive recruitment program is underway to attract students to ISA. Although expectations were high, '93-'94 enrollment was only 57, with total enrollment at 189. Although the institution has made the improvements required from an administrative standpoint to meet the challenges facing them in the next Century, there needs to be more discussion on what the demands will be with respect to non-traditional agricultural product selection, production technique and product transformations in order provide a curriculum more tailor-made to the needs of the sector and its demands for training. More attention needs to be given to the interests expressed by the private sector, as envisioned by some of the Board of Directors, in terms of the type of training needed for these alternative crops and products. The food science and product processing capacity of the Institution needs to be expanded. It is certain the future years will demand more exotic, niche market products, with some form of processing prior to sale or export.

Calculations on cost/student ratios, show full-time student costs to be high ($10,000) but when short-term students are factored in the per student costs roughly equal U.S. state-supported Universities ($6,600). The full-time TA to student ratio is 1:46, and the number of weeks of student training per week of TA is more than twenty-two. It is obvious that ISA needs to attract more full-time students. However, the training provided at ISA is particularly attractive to the private sector. The development of the internship program, in which every

student must work up to three months with a private firm in the field has become a very attractive component of the ISA training program, giving ISA a reputation for being "practical" and relevant to the non-traditional agricultural sector. As more productive units come on line, opportunities for student work assignments will materialize to further enhance their practical training.

The Continuing Education program at CADER is expanding and has been a noticeable success activity for ISA. Since it generates additional income for ISA, this is a very positive contribution in the mix of services offered by the Institution. Through March of 1993, the project had used a total of twelve years of long term technical assistance out of the 28 years which were budgeted. Short term consultancies were used to analyze the administrative requirements of the organization, for topics such as academic affairs, research, finance, student affairs, the business office--accounting, procurement, personnel, maintenance, budgeting and computerization. Additional consultancies were used to establish the strategic planning process and the financial development system. Local consultants were used to design the accounting and computerization systems, the new farm irrigation system, and the motor pool/preventive maintenance department.

4. Principal Recommendations

I. Reduce the rector's off-shore training to one year.

II.Rather than promote large-scale canning of tomatoes or pineapples for the food science unit, a smaller unique approach could be taken to produce specialty gourmet items such as preserves and pickles of fruits and vegetables, yoghurt, ice cream and cheese for the milk processing facility, and sausages and canned meats. Through the MUCIA contract the Ohio State University Food Industries Center would be interested and willing to participate by providing technical assistance to reestablish these processing lines, and with MUCIA's unique contacts to the Ohio State Canners Association, it is likely that they could entice a private independent canner to provide second hand machinery and management training for the opportunity to engage in off-shore sourcing of specialty items as mentioned above.

III. Explore the possibility of developing a Bono Educativo based on the production potential of mahogany on the ISA forestry farm sites, proceeds of which would go to the Endowment Fund.

IV. Market opportunities exist in several markets for many crops that can be grown in the Dominican Republic. It is recommended that the project contract for a complete analysis of the crops from the Dominican Republic that could have market windows in the U.S. and Europe. Simultaneously, more in-depth analysis of production costs and adaptability to local conditions must be developed based on field crop budget analysis. Market analysis and crop budgets should be developed for teaching and consultancies.

V. Training in post harvest handling and cold storage is imperative if the emphasis is going to be on developing capacity for non-traditional fresh crop exports.

VI. Student recruitment from the region should begin in earnest. There is no other University in the region that can teach in these fields with a concentration in the non-traditional crops and products, including natural resources, tropical timbers, food technology, post harvest technology, marketing and policy analysis.

VII. The capacity to offer a joint degree with one of the Big Ten Universities is recommended and expansion to include a master's degree.

VIII. Given the complexity of non-traditional crops and products--their markets, production and handling--it is the judgement of the evaluator that the use of external technical assistance be continued.

IX. Concern remains over the depletion of technical assistance and direction at CADER. It is recommended that the TA continue and that the time the director is offshore be limited to one academic year. The number of participant trainees and their length of stay off-shore is critical to other units as well.

5. Lessons Learned

I. The development of a University Faculty with a specific focus such as non-traditional agriculture is a long process. The University itself must be administratively sound before specific curriculum designed to foster development in particular commodity areas can be established. This takes a broad range of resources in many diverse subject matters as has been demonstrated by the technical assistance team. Success in University management and administration perhaps should not be judged solely by the number of full-time students or their cost/student ratios. but rather by the efficiency with which the administration conducts its overall tasks.

II. Identifying a curriculum tailor-made to the development of non-traditional agriculture which can train professionals in these topics is extremely difficult, principally because the field of non-traditional crops and processing activities is so ill-defined. More clarity in defining objectives in relation to non-traditional crop and livestock production, processing and marketing is required.

III. Determining the direct cause and effect relationship between the training of mid-level professionals in non-traditional agriculture and the increase in rural incomes due to non-traditional agricultural expansion is virtually impossible. However, if ISA can lead the way in introducing new crops, products, inputs, processing techniques and marketing approaches, the non-traditional agricultural sector will benefit, not only with trained technicians, managers and analysts, but also with new and appropriate technologies. However, more focus and definition is required in order to accomplish these goals.

IV. Participation by a U.S. University or Consortium is critical in providing additional expertise in the training and research programs than what is available locally. In addition, external (U.S.) professors lend credibility to the faculty and staff and expand their coverage and breadth in course offerings and research training. Without the U.S. connection, the institution will be constrained in its attempt to attract more students, both domestically and internationally. Because the purpose of the U.S. University connection is to provide expertise and credibility, long-term staff should be selected from the U.S. host university institutions.

A. Purpose, Procedure and Scope

The purpose of this evaluation was to determine the progress made by the Instituto Superior de Agricultura (ISA) (grant recipient) and the Midwest Universities for International Activities (MUCIA) (contractor) in carrying out the goals and purpose of the University Agribusiness Partnership Project (517-0243) funded by the United States Agency for International Development (A.I.D.). Specifically, the evaluation assessed the degree of compliance of the grant recipient and the contractors to their stated objectives and approved modifications, evaluated the effectiveness of the project's inputs and outputs within the ISA structure of activities, made a determination as to the validity of the overall project goal in the context of current developments in the agricultural sector and analyzed the institutions financial capacity and potential to attract financing for future activities.

The procedure followed in carrying out this evaluation was to 1) Review project papers, Country Development Strategy Statements and Action Plans; 2) Develop questionnaires for ISA and MUCIA Staff, for local agribusiness personnel, and for farmers in the area; 3) Conduct extensive interviews with ISA, MUCIA, and local farmers and business representatives; 4) Review all pertinent project and institutional documentation and project outputs; 5) Visit the campus of ISA and surrounding businesses and farms in the Santiago area and the Development Office in Santo Domingo; 6) and return to Santiago to make a final report on findings and recommendations to ISA, MUCIA and USAID staff, once the report was developed, reviewed and finalized. This procedure was designed to provide information in all areas of the Terms of Reference indicated below.

The complete Terms of Reference for the evaluation are provided in Annex 4. The study included gathering accurate information and carrying out appropriate analysis in the following areas of inquiry:

- Identification of indications of overall goal achievement and determination of the validity of the measures of goal achievement.
- Determination of achievements in satisfying the project purpose statements.
- Measurements of project outputs.
- Gender issues in project implementation.
- Comparison of project objectives to the Country Development Strategy Statement and Action Plan.
- Recommendations for modifications required to meet CDSS objectives and project goals, purpose and output objectives.

B. Principal Findings

1. Goal Statements

As the income generated from traditional crop exports (coffee, sugar, cocoa and tobacco) has declined due to drastic decreases in international prices, non-traditional agricultural activities have increased to some extent to replace these lost earnings. Since ISA has been a major actor in training agriculturalists and mid-level management in the area of non-traditional agricultural pursuits, the Institution has played a significant role in supporting this economic transition in the Dominican Republic. Non-traditional exports reached $137 million dollars in 1992, in spite of an unfortunate incident with regard to meat exports which accounted for a $22 million dollar decline and up from roughly $85 million in 1986. This represented 60% of the value of traditional crop exports, compared to approximately 37%(*) in 1989. However, the project goal is to "increase non-traditional commodity based income", and not just exclusively from non-traditional exports.

Attempts have been made to diversify production from these crops to non-traditional commodities with some degree of success. Pineapples, citrus, cut flowers, avocados, bananas, plantains and frozen fruit have all experienced significant production increases over the last several years. However, the volume of these sales cannot easily make up the difference in the fall of revenues experienced by the price decreases for the traditional products. A concerted effort continues to be required to promote alternative non-traditional products both for domestic markets and for export.

Production of non-traditional products is required for domestic as well as export markets. The Dominican Republic's are a small portion of the exports from the entire region for many crops. Expansion of production of these crops will not affect these markets in the U.S. or Europe. However, the entire range of potential crops has not yet been exhausted, and significant scope remains for expansion. Moreover, the shift to non-traditional production and processing will have a noted effect on employment and income in the rural farm sector because of the greater need for farm labor for these activities. In the area of processing, significant labor will also be in demand. And lastly, this labor

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(*) Evaluator estimate based on less production of bananas, pineapple, plantain and avocado, and a higher export value of traditionals. (See Jesus de los Santos and Kevin Murphy study.)

will be made up of both men and women in relatively equal amounts. Many studies have shown that employment in non-traditional crops and the processing of these commodities is carried out almost equally by both men and women.

In order to determine the full extent of the impact of non-traditional commodity growth in the Dominican Republic, a fairly major study must be conducted similar to the one carried out on exports by the CADER staff referenced below. Nevertheless, it should be noted that the project is not responsible for causing this transition from traditional crops but is rather providing a necessary element in the mix of requirements needed by the country to make this transition in an orderly fashion with an efficient use of natural resources and human capacity.

o Goal

"to increase non-traditional commodity based rural incomes."

It is certain that the development of non-traditional crop and commodity production over the last several years has contributed to increased rural incomes. ISA has played a major role in this transition. Every enterprise that was interviewed indicated that they had employees who were trained at ISA. In addition, the farmers who met with the evaluator expressed recognition for the value of the training offered by ISA, especially with respect to the control of the white fly. However, a more concerted effort to stimulate the non-traditional sector could have an even greater impact on rural incomes. ISA is poised to make this contribution and holds a rather unique position in the development community in this respect. Few institutions are strategically situated with regard to this objective and with the built in capacity that has now been generated at ISA. (See Recommendations)

2. Project Purpose

The project purpose statement has an intermediate objective of providing mid-level trained professionals in non-traditional agricultural and business management and administration pursuits through an A.I.D.--funded institutional strengthening set of activities. It should be noted that the purpose is to train mid-level professionals rather than technicians or vocational arts. This refers to the level of the curriculum, being that of a typical undergraduate program in agriculture with a bias towards non-traditional, alternative crops, products and activities, including a strong emphasis on management, accounting and administration. With respect to the specific purpose objectives, the project has accomplished the following:

o Preparation of mid-level technicians specialized in agribusiness and agro-industrial applications to non-traditional commodities.

Although enrollment on a national scale in agricultural curriculum is declining, ISA recruitment efforts have been significant to the extent that enrollment is increasing and is expected to reach 115 new students this Fall.

Given the demand for this training it becomes apparent that ISA is providing a quality service to the agribusiness and agro-industry community and all discussions with staff, consultants, farmers and business representatives supported this view.

o Has the management of ISA and CADER been improved to meet the needs of 2010?

This is an ongoing process that is in full swing. The Rector has just left for Ohio State University on a one (to two) year administrative training exercise. The director of CADER is programmed for external training (INCAE) early next year. Two others are currently in training in the U.S. This training will assist ISA and CADER in improving their management capabilities. In addition, interviews with Vice Rectors and Department Directors, as well as contractor staff, gives clear indications that the management of ISA has improved considerably, and with the new strategic planning system, is poised to carry on efficiently well into the next century. The accounting, budgeting, financing, personnel, procurement, and performance evaluation systems have all been revised and upgraded. A computerized accounting and budget system is in place. Salaries have been adjusted to compete with the private sector, and to give incentives for attracting financing for research and consulting activities. The plant and facilities maintenance program has also been improved, the cafeterias consolidated, student housing and facilities improved and the hotel facilities placed under modern management with a hotel administration specialist.

Although the institution has made the adjustments required from an administrative position to met the challenges facing them in the next Century, there needs to be more discussion on what the demands will be with respect to product selection, production technique and product transformations in order to meet the future demands. More attention needs to be given to the interests expressed by the private sector, as envisioned by some of the Board of Directors, in terms of the type of training needed for these alternative crops and products. The food science and product processing capacity of the Institution needs to be expanded and analyzed once again. It is certain the future years will demand more exotic, niche market products in a transformed stat, i.e. processed in some form.

o What is the status of the Endowment Fund?

The Endowment Fund will reach RD$35 million later this month when the Government makes its promised deposit. At an average earnings rate of 20 percent, this will provide RD$7 million annually to core financing of ISA, out of a projected annual budget of RD$23 million for 1994, or roughly 30%. The

goal for the Endowment Fund has been raised to RD$60 million and RD$5 million has been identified and committed from the private sector, according to the Chairman of the Board of Directors. At this level the endowment fund should provide for 60% of core funding needs. Several efforts are underway and being proposed to expand this fund. (See Recommendations).

o The ISA Development Office

The Development Office of ISA was initiated in the beginning of the project but the person assigned to the position to manage the office resigned over a year ago. Recruitment for a replacement took an extraordinary amount of time, trying to find the most appropriate person for the job. A broad-based recruitment process was utilized and finally a candidate was selected only last month. As a result, the operations of the Development Office are only now beginning to materialize. Expectations are that the Office will provide a critical contribution in fund raising for the Endowment and in developing a mechanism for identifying grants for research and consultancies and acting as a liaison office in Santo Domingo for all of ISA's needs.

o BS degree in Horticulture and technical degree in Forestry.

Each of these degrees have been formalized and established. However, the original departments of Horticulture and Forestry have been revised to more appropriately address the major issues facing their respective sectors. Horticulture is now part of the Agronomy Department and Forestry is part of Natural Resources.

o Have ISA and CADER staff salaries and income opportunities been created to equal private sector levels?

Salaries have increased four times. Opportunities for additional incomes have been developed through CADER and various research opportunities. However, the degree to which an ISA staff member can obtain additional income depends to a great degree on that faculty member's ability to attract additional financing. Through the CADER center grant proposal preparation is demonstrated and CADER has been extremely successful in competing for grants from FDA. The mechanism exists for supplementing salaries but not all staff are capable of taking advantage of this opportunity, nor is it certain that all will develop this capability. However, those who are not capable presumably would not be attracted to the private sector for the same reasons. For this reason there is a differential in staff salaries according to merit and market for specific capacities. Faculty associated with CADER earn relatively more than department associates.

o Are the productive university units under modern private sector management?

There are a host of productive units at ISA. Also, several other "productive" units could be established. Great opportunity exists for developing these units as income generating activities, but this will take additional analysis to determine what would be the most appropriate approach to take.

Three activities are now under modern management. The hotel section has been placed under the management of a hotel administration graduate and is being managed as a profit center. The conference center is also being managed in a way so as to rent out facilities as well as charge short courses and continuing education for conference services. A new contract has just been let for the operation of the bakery. Several other potential lease-contracts or management contracts are being considered but have not reached the concrete proposal stage as of this date. Considerations have been proposed for the food science laboratory and canning facility, to provide service in vegetable and horticulture processing, processing of milk products and processing meats. FAO is finalizing plans to finance a cheese processing capability. (See Recommendations)

o Demand for training at ISA.

An aggressive recruitment program is underway to attract students to ISA. Expectations are that enrollment will reach 115 this Fall, but the actual enrollment was only 57. Last year's class was 103, the previous year it was 22. This reflects the variant nature of demand for agricultural training and the vicissitudes of public perception of the need for these kinds of skills. Recent adverse statements by the Government in the press have also dampened the original enthusiasm for ISA's training.

ISA's Enrollment, '87-'93

1987	93
1988	82
1989	119
1990	67
1991	22
1992	103
1993	57

However, these numbers do not reflect the tremendous increase in activities at CADER. Demand for CADER courses and research is expanding rapidly, and must be given total support by the institution. This will complement to a certain extent the lower level of entrants in the two-three-year program.

It must be realized that ISA is competing in a declining market in the demand for agricultural training due to the relative decrease in agricultural output in the economy and the lack of emphasis in agriculture on behalf of the current Government. However, CADER is hosting a series of discussions with all of the political parties in order to more clearly define a generalized and acceptable agricultural policy for the country, one that will emphasize support for non-traditionals. In addition, Government employees have recently received an increase in base salaries of almost 100%, which should make the agricultural vocation more attractive and stimulate more demand for agricultural education. Both of these situations should help increase the demand for training at ISA. Also, based on the Austin Associates survey of the demand for ISA graduates in the private sector, and discussions with students and local business representatives, the demand for ISA trained graduates is perceived to be strong in spite of the general economic difficulties in the economy.

Moreover, the training provided at ISA is particularly attractive to the private sector. The development of the internship program, in which every student must work up to three months with a private firm in the field has become a very attractive component of the ISA training program. ISA has a reputation for being "practical" and the development of the student work program to defray tuition costs also provides an opportunity to develop practical experience in production. (This component of the curriculum is being expanded--as more productive units come on line, opportunities for more relevant student work assignments will materialize.)

The annual budget is in the order of twenty three million RD$ (US$ 1.8 Million) for 182 registered full-time students which calculates to about $10,000 per student. However, in addition to full-time students, ISA trains several thousand in short courses. Combining full-time and short course students together, cost per student is $6,000 on a full-time equivalency. The full-time TA to student ratio is 1:46, and the number of weeks of student training per week of TA is more than twenty two. It is obvious that ISA needs to attract more full-time students, but under the current economic recession and the turning of the terms of trade in agriculture, demand for agricultural training is lacking. This is even more true in the U.S. where agricultural school's attendance rates have dropped considerably in recent years.

o Continuing Education

The continuing education program at CAFER is expanding and has been chosen as one of the two areas of concentration by the Institution, in terms of its decision to stress policy analysis in agriculture. The above mentioned exercise with the political parties reflects this interest. The CADER program can be expanded even further. Since it generates additional income for ISA, this is a very positive contribution in the mix of services offered by the Institution.

o Long term and short term technical assistance.

Through March of 1993, the project has used a total of nine years of long term technical assistance out of the 28 years which were budgeted. The project was supposed to start with long term technical assistance but the MUCIA contract was not signed until nine months after the project began, and at that time the Gulf War was raging. Further delays prevented the long term technical assistance from starting until March of 1990. Furthermore, based partly on the inability to adequately support U.S. personnel in country, the one long term advisor who left after one year was not replaced. As a result, the project did not have the assistance it required to initiate all that was needed in the first year.

To compensate for the diminished long term technical assistance and the underestimate of what was required for technical assistance to the administrative component in order to reorganize and restructure the administrative system, short term consultancies were used extensively during the first two years of the project. Twenty four consultants worked with the staff of ISA to analyze the administrative requirements of the organization. Topics such as academic affairs, research, finance, student affairs, the business office--accounting, procurement, personnel, maintenance, budgeting and computerization were all addressed in this fashion. Additional consultancies were used to establish the strategic planning process and the financial development system. Each vice rectory also solicited corresponding technical expertise to assist in the redefinition of functions for each office. In addition to the foreign technical assistance, ten local consultants were used, principally to design the accounting and computerization systems, the new farm irrigation system, and the motor pool/preventive maintenance department.

The use of short term technical assistance for administration pushed the total number of weeks utilized up to 438 as of March 31, 1993. However, this is somewhat misleading. The original project paper called for 500 weeks of short term consultancies, but the contract signed with MUCIA reduced that number to 203. Several project SARS use the figure of 240 as the adjusted

amount. To date (4/1/93) a total of 89 consultants have been used. The 66 foreign consultants gave approximately three weeks each of consultancy work, totalling 208 person weeks, and 23 local consultants provided almost ten weeks each of consultancy time, totalling 230 person weeks.

Local consultants were not contemplated or budgeted for in the project paper, but during execution the project managers found that short term domestic consultants could play a particularly useful role in many areas and thus were engaged. The resulting short term consultancy rate is thus higher than what was programmed originally, but in terms of budget has not exceeded the combination of line items allocated for long term and short term consultancies. These discrepancies in the approved number of short term and long term consultancy requirements need to be resolved and reprogrammed with proper authorizations from the project officer and adjusted to the dollar budget amounts and not the total number of work weeks as listed.

In questioning the staff about the relative merits of the short term and long term consultants, there was virtual unanimity that those who have come to the campus have been extremely useful and worthwhile, and that more of this assistance is desired and recognized as essential in developing ISA.

Of the 89 consultants used in the project, 34 were used to advise the administration, including the Rector's office and vice rectories, 22 provided assistance to CADER, and 10, 11, and 12 respectively assisted the horticulture, animal production and natural resources departments. Department heads and rectors and vice rectors have responded that these consultants were useful, timely and competent and they would like them to continue.

o A Critical Issue-Marketing Strategy for ISA

Because the demand for ISA varies in a declining and rapidly shifting market, ISA must develop a strong and aggressive marketing campaign. Alumni and the private sector in the Republic must be captured in order to provide more financial and advertising assistance. This is imperative for ISA's survival. Other sources of income and support are discussed later in this report, but a marketing of ISA in the community by ISA's traditional supporters-graduates and users of the services-must be tapped immediately.

3. Outputs

o At least 40 full time faculty trained with increased awareness of gender issues.

The forty-plus full time teaching staff at ISA and CADER have been trained through graduate degree training, with the assistance of long and short term counterparts, by short term training courses and by participation in on-campus and local training activities. They have matured into a competent, dynamic, enthusiastic and well respected cadre of professionals engaged in teaching and training in agribusiness and non-traditional commodities. However, the staff is somewhat young and with limited hands-on experience in business. Most of them have been former students at ISA who have continued on with graduate study and returned to the campus as professors. Given ISA's precarious financial standing and the decline in demand for agricultural training in general, ISA has not been able to recruit from other Universities, the private sector or the public sector. Some professional staff are considering their own internships to gain additional "business experience".

o Ten full time staff at CADER.

The situation at CADER is less robust. Although nine staff have been trained and prepared in the methodology utilized at CADER (based on the case study model exemplified by Harvard Business School and INCAE), five staff have left. The current director is scheduled for long term training in February, '94. In spite of this situation, CADER has been a real plus in the development of ISA. The number of courses, seminars, research grants, consultancies, students and special activities continues to expand and virtually all activities cover costs and contribute to overhead. The interruption in the provision of technical assistance from the MUCIA contract, from which Austin Associates provided Kevin Murphy, will be greatly felt. Additional technical assistance will need to be assigned quickly to CADER to ensure its continued growth.

o Fifteen policy workshops.

Twenty-nine policy workshops have been conducted as of March 31,1993.

o Sixty policy seminars.

Thirty-seven policy seminars have been conducted as of March 31, 1993.

o Fifty weeks of short cycle training for agribusinesses.

Ninety-one weeks of agribusiness short cycle training has been offered up to March 31, 1993.

- 3,000 farmers trained.

  Over 3,500 farmers and farm leaders have been trained in ISA's CADER programs, 2,892 men and 692 women.

- 250 monographs.

  128 research monographs have been produced as of March 31, 1993, and roughly thirty more are currently in production.

C. Gender Issues

1. ISA has performed well in recruiting women students in agriculture and agribusiness in spite of the general lack of interest and presence in this traditionally male environment. Over thirty percent of the student body are women and it is expected that the new incoming class will have 40% women.

2. Women chair one department at ISA (Animal Production) and head up the Comptroller's office, Accounting, Purchasing, Personnel and the Student Credit Office.

3. Women faculty received seven percent of the short term professional exchange during the last semester (Fall '92) and fourteen percent over the life of the project.

4. Nineteen percent of the farmers and business leaders trained at the Institute were women.

5. There is a general awareness on behalf of staff and administration that women must play an integral part in the life of the institution.

D. CDSS and Action Plan Achievements

1. This project addresses all four of the strategic objectives of the revised action plan for 1992-1994. ISA's overall goal is to provide training in the production and marketing of non-traditional commodities and to develop and maintain the country's natural resource base. In pursuing this goal, ISA's trains agribusiness people in identifying alternative products for domestic and export production. This supports strategic object 1, increase and diversify external trade. Non-traditional agricultural production and exports is one of the fastest growing sectors of the economy and ISA plays a major role in this promotion.

2. The second strategic objective is to provide additional opportunities for low income groups. ISA has traditionally attracted students from rural farming communities throughout the country. Their roots are out amongst these low income groups that are targeted by this objective. As the graduates of the short and long courses of ISA return to their communities they begin to explore new opportunities which lead to the formation of new enterprises using employees who come from these "low income groups". And since non-traditional agricultural production is a heavy user of agricultural wage employment, new employment opportunities will mushroom in the rural areas by virtue of these initiatives.

3. The third strategic objective is to increase the availability of water for sustained economic development. With regard to this objective, ISA has reorganized one of its departments to incorporate forestry and watershed management into a natural resources department. The ecology of watershed management and reforestation will be addressed through teaching, research, policy analysis and reforestation production units.

4. The fourth strategic objective, participatory democratic reform, will be addresses through the development and expansion of ISA's CADER program as it concentrates on developing new agricultural and agribusiness policies for the four major political parties. Through a series of open forums, CADER is hosting the discussions of policy reform in agriculture, which will lead to more participation of the views of the new non-traditional agricultural sector and the interests of those trying to expand non-traditional exports. Since these market participants are generally not an integral part of the existing ruling class of traditional crop producers, this shift to non-traditional producers is part of the goal of this fourth strategic objective.

E. Recommendations

Recommendation I.

The restructuring of the administration has been carried out and there is now a new strategic plan for the next ten years that was based on an intensive self evaluation, highlighting their own perceived limitations and expressing their own expectations. Work plans are now being developed for each entity within the organization. New programs are now in place to cover procurements, accounting, personnel, a pension and retirement plan, the farm irrigation system with equipment, a combined cafeteria, an improved hostel, and an admissions office. The project should closely monitor these developments and provide whatever assistance is required as they move from infancy to maturity. From all perspectives this restructuring and the role the Rector played in orchestrating these changes appears to be a resounding success story. Moreover, the Rector's experience in conducting these activities have made him particularly well-suited for the training he is beginning to receive at the University of Ohio State. However, his long-term absence from the ISA campus could be detrimental for the introduction and implementation of so many changes, new offices and personnel. A one year absence would be recommended rather than 18 months to two years. After having met with the Rector and the MUCIA program managers, it is felt that the original suggestion by the evaluator for the return of the five wise men would be ill-advised. The new programs and new structure should be allowed to operate for a time before any further evaluations are conducted.

Recommendation II.

One of the key questions asked of the evaluator was in regard to the current status of the "production units". At present, the cannery and food science technology unit is not operative. This entity needs to be spun off or incorporated into the activities of ISA. Little thought has been expended in this direction to date because of the enormity of the task and the seemingly impossibility of identifying attractive solutions. However, a concentrated effort to find a solution to this dilemma was initiated by the evaluator and a potential solution has been discovered.

Full scale canning would be inappropriate for the size of the facilities and the nature of canning operations in general throughout the developing world. Rather than consider large-scale canning of tomatoes or pineapples, and smaller unique approach could be taken to produce specialty gourmet items. The facilities include a cannery (for preserves and pickles of fruits and vegetables), a milk processing facility which could be adapted to produce yoghurt, ice cream and cheese as well as a limited quantity of milk, and a meat processing capacity that could produce sausage and canned meats. Through the MUCIA contract the Ohio State University Food Industries Center would be interested and willing to participate by providing technical assistance to reestablish these processing lines. With MUCIA's unique contacts to the Ohio State Canners Association, it is likely that they could entice a private

independent canner to provide second hand machinery and management training for the opportunity to engage in off-shore sourcing of specialty items as mentioned above. Moreover, the Food Industries Center is developing new technologies for a carbonated tomato drink fortified with whey, a discard product from the cheese process.

Since the farm at ISA will produce fruits and vegetables in sufficient quantities preserving and pickling, the animal production unit will produce the milk for cheese, yoghurt and ice cream, and the meat operations will produce limited amounts of beef, mutton, pork and poultry, sufficient raw materials will be available for a complete line of specialty products.

The concept would be to lease the operations and management to representatives of the Ohio Canners Association with technical assistance from the Food Industries Center at Ohio State to set up training facilities and a hands-on food technology curriculum so that the facilities could turn a profit for ISA and at the same time provide instruction in food technology and food science. Since the current acting rector is trained at the Ph.D. level in this discipline, a core staff member would already be in place and presumably courses could be built around actual work in the facilities as they do at Ohio State in their pilot processing plant on campus.

Employees at the facility would be the students who have to provide work to ISA for their tuition offset. Also, this additional curriculum would be beneficial to the student body who would then be prepared to find employment in the fast growing food processing industry for non-traditionals.

Recommendation III.

Explore the possibility of developing a Bono Educativo based on the production potential of mahogany on the ISA forestry farm sites. A private firm in Costa Rica has developed a tax free bond issue for a stand of Indian Teak that will eventually be used for parquet floors in Switzerland. Several other firms in Costa Rica sell bonds for investors in fruit tree plantations. The idea would be to use the land owned by ISA to plant several hectares of mahogany in the dry land areas and teak in the humid areas. A mixture of pine may also be possible to give the production unit more flexibility and integration. Once the land is seeded and calculations on growth rates have been established, an estimate of the future value of each hectare would be made to determine the net present value of each stand. These plantations would then be presold in bond issues. Since the bonds would be to support a natural resource base and recovery of a national treasure (Tropical Mahogany) anyone purchasing the bonds could claim tax exemption for an equal amount (This would be negotiated with the Government.) Since the bonds would be sold at a heavy discount it would be expected that local businesses or even some foreign investors or wood products firms (timber producers or furniture makers) would be interested in purchasing the bonds. Proceeds from the bonds would be used for deposit into the ISA endowment fund.

Once the plantations are seeded, the Forestry Division would supervise, monitor and guard their production. The Forestry Division would also develop a curriculum around the production of these types of industrial woods. In this process ISA could also provide a service to the country for reforestation using these species and provide seedlings as well.

Recommendation IV.

The production of non-traditionals is dependent upon market demand. Market opportunities exist in several markets for many crops that can be grown in the Dominican Republic. It is recommended that the project contract through MUCIA for a complete analysis of the crops from the Dominican Republic that could have market windows in the U.S. and Europe. This information would then be available to the students, for short courses and for individual business people interested in expanding into alternative crops.

At the same time that the market windows of opportunity are identified, more in-depth analysis of production costs and adaptability to local conditions must be analyzed. Based on field crop budget analysis, a complete set of data should be developed for teaching and consultancies and for comparison with the market window information. Information on packaging and transportation should also be developed. This information would be used for teaching as well as for consulting for anyone interested. Short courses could also be developed around this information.

Recommendation V.

Training in post harvest handling and cold storage is imperative if the emphasis is going to be on developing capacity for non-traditional fresh crop exports. A locally constructed cold storage facility could be constructed for under $50,000 and could be used for the training of all of the principles of cold storage handling for the different types of crops. Since each crop is handled differently, this training would have to be quite sophisticated. MUCIA could tap into their University pool to obtain faculty to set up this type of course, using the locally constructed cold storage facility. This facility is also designed to take out the field heat for specific products.

Recommendation VI.

ISA is now in a position to attract students and course attendees from the entire region-Central America, the Caribbean, South America and, as is currently happening, from the U.S. (MUCIA offers credit courses for participating Universities at ISA each year.) Recruitment from the region should begin in earnest, especially if the curriculum could be expanded as recommended above. There is no other University in the region that can teach in these fields with a concentration in the non-traditional crops and products, and to include natural resources, tropical timbers, food technology, post harvest technology, marketing and policy analysis. In order to ensure that this regional effort is successful it is recommended that through MUCIA they develop the capacity to offer a joint degree with one of the Big Ten Universities. The Director of MUCIA believes this is possible at this time.

Recommendation VII.

If ISA is to be a regional agribusiness and alternative non-traditional products center, offering a joint degree with a midwest university, then it should increase its academic offering to include a master's degree. MUCIA would be in a position to assist in this formation and is extremely interested in doing so. This would also tie in to the idea of offering a joint degree from a U.S. University, similar to what INCAE offered originally with Harvard.

Recommendation VIII.

The project has achieved significant progress to date, but this does not mean that it can be turned over to the local counterparts to run by itself. The complexity of non-traditional crops and products, their markets, production and handling, is extremely difficult to handle conceptually and practically. It is the judgement of the evaluator that the use of external technical assistance must be continued. Each department head interviewed, as well as the administrative staff were unanimous in expressing a desire for continuing the technical assistance.

Secondly, ISA needs an identification with a foreign University in order to increase its drawing power for students from the Dominican Republic and from other countries. Ohio State has already started a program of internship at ISA for a quarter. Other MUCIA members could do the same, but this would be unlikely if there were no outside TA collaborating in course preparation and teaching.

Lastly, the region desperately needs a training program for non-traditional products production and marketing in the LAC Region and ISA could develop this kind of program if it maintains its high standards and its U.S. University affiliations. The evaluator does not believe that this could be achieved without the continuation of the MUCIA technical assistance project until the PACD. But it should be noted that this is a delicate issue. This not to insinuate that the Dominican staff are incapable of developing a quality program, but rather it takes resources, experience, credibility and connections to advance technologies for non-traditional products. A strong relationship one of the MUCIA member Universities would ensure these developments. The goal would be to establish a joint-degree program with the designated U.S. University by the end of the project period, a possibility that has real potential at this time according to the MUCIA's director and his readings of the attitudes of the MUCIA consortium's group of University Presidents. Moreover, the ISA director will be working with this steering committee of Presidents, he will know them personally, and will be in a position to assure them that ISA has the capacity to develop such a program.

Based on these conclusions, my recommendation is the following:

Long-term Technical Assistance

Administrative	3	years
Natural Resources	2	years
CADER	2	years
Agronomy	2	years
Animal Production	2	years
Total	11	years

(This would give a total of 24 years out of the 28 originally planned.)

Short-term Technical Assistance

	person weeks
Administrative	5
Bono Educativo	15
CADER	20
Market Analysis	20
Farm Budgets	20
Natural Resources	15
Agronomy	15
Animal Production	15
Food Science-feas.study (includes setting up mgmt contract)	30
Cannery	16
Milk proc/Cheese	16
Meat proc.	16
Cold Storage	20
Total	223

Analysis:

Current expenditure on short-term TA

Foreign TA 208 weeks
Domestic TA 230 weeks, equivalent to 57 foreign TA

Total equivalent TA 265
Short-term TA authorized 240
Shortfall of 25 weeks

Short-term equivalent TA available from unused long-term TA is four years, or 208 weeks.

Short-term TA available from projected unused foreign participant training is 4 times $25,000 per year for two years, $200,000. This would provide 40 weeks, assuming $5,000 per week cost.

-25
+208
+40
+223

Recommendation IX.

There is real concern over the depletion of technical assistance and direction at CADER at this critical point. CADER has been able to develop into the most promising component at ISA, with the capacity to generate significant income for ISA and to develop a tremendous reputation for the school. Cutting the TA and sending the director for offshore training at the same time could be devastating. I recommend that the TA continue and that the time the director is offshore be limited to one academic year. Since the offshore training is not for a degree course, more than a year is not necessary. I feel he will learn more in interaction with the ISA consultants and on the job training than he would from a year a INCAE, where he has already received one degree.

In this same vein, I recommend that the Rector's time outside the country be reduced to 12 months so that he can return to lead the institution. I believe they need his leadership. In addition, an analysis should be made of the wisdom of financing the participant training in the U.S. directly from the DR. On the U.S. campus of most MUCIA consortium members visiting scholars receive less benefits than enrolled students or payrolled faculty. This severely affects housing, health benefits, parking privileges, etc. There is no question that these scholarships should be run through MUCIA. This is causing severe hardship at this moment on the Rector's assignment to Ohio State.

Recommendation X.

The total number of "productive units" that should be considered at ISA are listed below. Not all of these units should come on stream immediately because this would entail a management nightmare. However, the university farm, the bakery, the hotel and conference center and the proposals for the food science unit should be the first priorities.

Potential Productive Units

University Farm
Cannery-food technology lab
Livestock Unit
    Dairy Products
    Meat Products
    Sheep
    Poultry-meat or eggs (eggs for mayonnaise in cannery)
Aquaculture-catfish, carp, tilapia
Slaughter House and Tannery-Leather works
Wood Plantations
    Carpentry/furniture
Soils Lab
Nursery-fruit trees, wood species
Feed Plant-for poultry, swine, milk cows, aquaculture
Cold Storage and post harvest handling

Recommendation XI.

Participant training is a major concern of both the ISA administration and the MUCIA project coordinators. If key people are sent off for training at the same time that the project is trying to establish that unit, the utility of the training will be lost. It would be wise to reconsider the number of offshore trainees. Eight were programmed, two have left the DR for training and one is scheduled for February. Perhaps only one more should be considered. Conversely, instead of going for two years the same could probably be accomplished in one year. These are not degree training efforts. This reduces the incentives for these trainees and they are also worried about losing their position at the institution if they go for training. My recommendation would be one-year training programs at collaborative MUCIA institutions and in that way still provide for eight such study/work exercises. The same number of people will have the opportunity to go offshore for a year but it will not be as threatening to their current positions.

F. Lessons Learned

I. The development of a University Faculty with a specific focus such as non-traditional agriculture is a long process. The University itself must be administratively sound before specific curriculum designed to foster development in particular commodity areas can be established. This takes a broad range of resources in many diverse subject matters as has been demonstrated by the technical assistance team. Success in University management and administration perhaps should not be judged solely by the number of full-time students or their cost/student ratios, but rather by the efficiency with which the administration conducts its overall tasks. University strengthening is a long-term investment, and in this case, may be one which should incorporate the participation of the U.S. institutions on a permanent basis.

II. Identifying a curriculum tailor-made to the development of non-traditional agriculture which can train professionals in these topics is extremely difficult, principally because the field of non-traditional crops and processing activities is so ill-defined. More clarity in defining objectives in relation to non-traditional crop and livestock production, processing and marketing is required. The processing facilities should be upgrtraded and brought on line in order to contribute to the range of course offerings in the non-traditional agricultural field.

III. Determining the direct cause and effect relationship between the training of mid-level professionals in non-traditonal agriculture and the increase in rural incomes due to non-traditional agricultural expansion is virtually impossible. However, if ISA can lead the way in introducing new crops, products, inputs, processing techniques and marketing approaches, the non-traditional agricultural sector will benefit, not only with trained technicians, managers and analysts, but also with new and appropriate technologies. However, more focus and definition is required in order to accomplish these goals. More attention needs to be laced on defing what the market for non-traditionals may be in a decade from now from a country such as the Dominican Republic, and what corresponding training will be in demand. Perhaps policy analysis and natural resources course offerings will have to be supplemented by marketing and production analysis, cold storage and crop preservation, transportation technologies, and food processing.

IV. Participation by a U.S. University or Consortium is critical in providing additional expertise in the training and research programs than what is available locally. In addition, external (U.S.) professors lend credibility to the faculty and staff and expand their coverage and breadth in course offerings and research training. Without the U.S. connection, the institution will be constrained in its attempt to attract more students, both domestically and internationally. Because the purpose of the U.S. University connection is to provide expertise and credibility, long-term staff should be selected from the U.S. host university institutions. This was the case with INCAE, upon which ISA was modeled.

G. General Comments and Observations

1. Comments on the Administrative Restructuring Process

During the course of the project the administration of ISA used the short-term consultancies quite extensively to assist them in evaluating the current administrative structure and in designing a new reorganized system. This has been an excellent exercise has been quite fruitful, giving the Institute a completely new look. The procedure began with the visit of the five "wisemen" early in the contract period, who looked at academic affairs, research and extension, student life, administration and business affairs. Several modifications were made based on the recommendations emanating from their comments. Subsequently, consultants were contracted to recommend changes in farm operations, faculty incentives and employee evaluations. A major strategic planning exercise was designed by Echeverry from Cali, Colombia, Universidad del Valle, which culminated in a strategic plan for the next decade which was just completed last month. A colleague of his also helped develop the new accounting and finance system.

Austin and Associates conducted a review of the demand for ISA graduates, short courses, and services from the Dominican Republic's private agribusiness sector. Frances Byrnes conducted an analysis of the Institutes research program. All of these studies, consultancies and review and analyses have made a considerable impact on the upgrading of the Institutes management practices. And the Rector has matured and learned a great deal in this process. All indications are that he has improved from a caretakers position to that of a dynamic leader of an institution that is poised to take off and become a truly regional university with the capacity to offer a joint U.S. degree. ISA has come a long way in the past three years.

2. Comment on Technical Assistance in Non-traditional Products

Non-traditional crop production or other non-traditional products creation is not indigenous to the Dominican Republic. Knowledge as to how to produce, process, package and market these products has to come from outside the country. Someone has to bring this knowledge in. The country needs a mechanism for obtaining this information and for distributing it to everyone in the country who is interested. The ISA-MUCIA connection is an excellent way to transfer this information. It should be continued and reinforced. Several recommendations have been made and if taken entirely then this project would be in a position to accomplish the task of introducing non-traditionals to the DR. However, a conscious effort must be made to analyze the market opportunities (i.e., prices and volumes for each product in each form), to test the production possibilities and develop recommendations vis a vis production technologies, to train the community in post-harvest technologies (i.e., cooling, freezing, processing, packing, preserving, etc.), to teach marketing methodology (i.e., how to price, package, store, advertise and transport), and to continue to hold open forums on key issues facing the non-traditional agricultural sector. The Institute has selected to concentrate in forestry, watershed management, agronomy for fruits and

vegetables and livestock products-the key growth industries of the near future. But knowledge about how to develop these industries does not reside in the DR at this time. The country must, in a sense, be willing to go out and buy this information. The ISA-MUCIA project provides this opportunity for acquiring the information if managed properly.

The MUCIA contractors can provide specialists in all of the key areas encompassed by the ISA strategy. All of the divisions of ISA are the strengths of the MUCIA consortium's home campus activities. Forestry, watershed management, vegetables, fruits, dairy and meat cattle, poultry, swine, sheep, food technology-all of these disciplines are taught at these Universities.

In addition, the ISA-MUCIA effort should concentrate on a few key issues. One that is already being addressed is the issue of the white fly that attacks the tomato crop. An Integrated Pest Management program is already underway. An equal effort must be designed to permit proper forest or plantation management, from the point of view of economic exploitation to natural resource protection. This will require lobbying for the lifting of the ban on cutting timber (if it is plantation grown!). Another area of major concern, and one that has caused severe hardships for non-traditional crop producers, has been the duties on inputs and machinery. Although much has been made of the apertura, there still seems to be a problem in this area-either a misperception on the part of the majority of the ISA staff or a continuance of the limiting behavior (i.e., import fees or duties). Each of the major policy areas must be identified and a special campaign be mounted to attack the problem.

3. A Unique Suggestion

One way to really give the staff of ISA the opportunity to become a veritable expert in at least one crop, with recognized credentials throughout the island, would be to require each staff member to **"Pick a Product"**. For that product chosen the staff member would have to become the expert, from seed selection and production, through research in production technology and its verification under field conditions, on into post harvest handling and processing, and finally, being totally knowledgeable about its market-both domestic and international. Students of each professor would be required to produce theses to follow a crop through from start to finish, just like an entrepreneur would have to do. In order for each professor to learn the details of each crop or activity, each professor would select outside talent from the pool available through MUCIA for the particular crop or activity and would design course work and on-going research around the basic themes of the crop or product. Since vertical integration is the key to any agribusiness person's success, the staff would be required to think like an agribusiness person.

4. A Word on Debt Swaps

The ISA debt swap was the first one that MUCIA attempted. Proceeds from the swap amounted to $200,000 for a $500,000 payout; in other words, ISA received the $500,000 donation plus $200,000 additional dollars in RD's from the Government in excess

of the payout. The USAID grant was for $500,000 and ISA received $700,000. However, since this was one of the first orchestrated debt for education swaps by MUCIA they spent a considerable amount of time and money in closing the deal. Subsequently, they have orchestrated similar swaps in Ghana and are currently negotiating possibilities in Bolivia, Costa Rica, Ecuador, the Philippines and Venezuela. Although the swap in the DR only generated a 40% premium ($200,000/$500,000) whereas the Ghana deal generated a 300% premium ($750,000/$250,000) this line of funding should still be pursued because there is apparently another $2,000,000 in arrearages that could be utilized. I would contract with MUCIA and the Debt for Development Coalition to negotiate the deal in order to get at least a 100% premium. Much less than that would not be worthwhile. In the DR case MUCIA spent about $73,000 for ISA's $200,000 gain while in Ghana MUCIA spent $23,000 for a $750,000 gain. Given that all parties now know how to carry out one of these swaps and that there are precedence for the relative amounts of costs and premiums, a renewed approach to trying another swap in the DR would seem appropriate at this time.

5. The Advantages of MUCIA

MUCIA represents the Big Ten Universities and has a working relationship with many more as well as connections with many of the more prominent consulting firms and institutions in the U.S. and abroad. They can tap into a large reservoir of talent as has been shown by the variety and excellence of the shot-term consultants who have already worked on the project. But the key advantage of MUCIA for A.I.D. is in the cost structure. Whereas consulting firms are generally near 100% in overhead and fees, and many of MUCIA's competitors are close to 50%, MUCIA only charges 27%, and many times this is only on the first twenty-five percent of the particular line item expenditure. Secondly, if there is a delay MUCIA can float the costs with a line of credit for which the Universities generally cover the interest costs. This project cost $54,000 in interest before A.I.D. finally began reimbursements. Only institutions such as MUCIA can provide these kinds of services. Although other University consortium exist, the others are not as financially sound as MUCIA.

Having a University consortium involved with ISA is another unique advantage. The consortium is already sending students to ISA for one quarter a year and offering credit classes. MUCIA is interested in offering a joint degree between one of the MUCIA Universities and ISA. In addition, they are interested in developing an Master's Degree program at ISA. In this way a long term relationship will be developed that will not end when the project ends. Also, this relationship with a U.S. University will allow ISA to attract students from the entire region and not just from the island.

The final advantage is in the relationship to Universities that are equally consonant with the struggle for finding alternative crops and products. The major U.S. agricultural universities are facing smaller enrollments yet they account for a large share of the University's investment in faculty and facilities. At Ohio State there are about 1,000 agriculture students and another 1,000 graduate students. The university as a whole counts

55,000 students. Clearly agriculture is in the minority. But in terms of facilities and faculty, the State College of Agriculture accounts for probably 40% of the University's complement. Hence, the agriculture faculties are desperately looking for new alternatives to attract students and to serve the local communities. Similarly, the local canning firms which used to dominate the midwest are moving elsewhere where labor is cheaper and production is not subject to the risks of freezing, flooding and drought. Also, these universities have unused land that is being encroached upon for urban uses or is too marginal for productive cash crop production. The universities are in a bind are depending upon the MUCIA approach to create some new opportunities. A relationship with ISA to teach, train and conduct research in alternative products is just what they need. The marriage could be long lasting and extremely beneficial to both sides.

6. Policy Analyses for Non-traditionals

Once a decision has been made to promote non-traditional products, a role of advocacy becomes more important than one of "a level playing field" or "free markets with absolutely no subsidies", etc. Any business person attempting to crack into the non-traditional products markets recognizes that some form of initial protection is desired and perhaps even required if the local entity is to succeed in this brutally competitive exercise. Agricultural and business policies are viewed in a different light when one is an entrepreneur compared to one who is a government official. A government official is required to offer equal advantages to all entities regardless of size, orientation, location, political party or religion. This has led A.I.D. to promote a program of no subsidies anywhere in the world. Unfortunately, back home in the United States we legislate marketing orders, export promotion payments, quota protection schemes, and price supports almost at will. Ours is one of the most subsidized and protected agricultural systems in the world.

In fact, our A.I.D. programs cannot aim at the development of the host countries in which we operate without being careful not to cross the premises spelled out in the Lautenberg Amendment, the Bumpers Amendment, Section 599, the textile quota system, peanut quotas and citrus limitations. All of these statues restrict what we can do with A.I.D. money.

Given all of these constraints I would suggest extreme caution and rigorous analysis before making policy recommendations if indeed the goal is to promote non-traditional crop production and eventual exportations. The policy issues under these conditions are extremely complex. What appears to be a neutral policy may indeed be biased against a particular non-traditional subsector. Just bringing in professors to conduct seminars on free market prices and unsubsidized production (i.e. market prices for fertilizers and pesticides) may lead to the introduction of policies and investment codes that will eventually prohibit a large scale introduction of non-traditional crops and products because they will be too costly to produce and not competitive in international markets. The "apertura" has already caused a problem in the DR because cheap goods from external markets are now less expensive than domestically produced agricultural products (i.e. powdered milk, vegetable oils, meats, etc.). A.I.D. has

already struggled with this situation in West Africa vis a vis powdered milk from France and frozen meats from Argentina, and A.I.D. has not reached a viable solution. Part of the problem is that other countries dump or subsidize their exports so that the distortion is passed on to the receiving country, and tends to knock out any prospective for producing that product domestically. A careful analysis of each policy with respect to the whole gamut of non-traditional products must be made in light of the DR's position with respect to international markets, the U.S., Lome IV and the EEC. Current restrictions on bananas is a case in point. Some times a country must fight back with protection, counter measures, subsidies and incentives in order to keep the playing field level (this is in effect what a marketing order in the U.S. attempts to achieve).

My observation would be that if the DR is serious about replacing the lost revenues from the decline in prices to the traditional products by introducing large scale production of non-traditionals, a promotion and incentive scheme will have to be developed that gives farmers willing to enter into this sector some kind of initial advantage in order to gain a foothold and to penetrate the targeted markets. This will cost the Government something in the short run.

Annex 1.
Persons Interviewed

I. Persons Interviewed

USAID/Santo Domingo

Larry Laird,
Odalis Perez,

Instituto Superior de Agricultura

Wilfredo Moscoso, Acting Director
Angel Castillo, Director, CADER
Saul Abreu, Vice Rector Administration
Maximo Leon, Vice Rector Academica
Anibal Rodriguez, Vice Rector Investigation
Yocasta Soto, Animal Production
Ramon Jimenez, CENDA
Domingo Carrasco, Natural Resources
Margarita Garcia, Forestry

Dr. Frank Thomen, Board of Directors
Gerente, Compania de Enlatados, Sr. Garcia
Gerente, Compania de Semillas, Sr. Genao
Andres Fernandez, Junta de Regantes

MUCIA

Jerry Ladman
Kevin Murphy
Alberto Beale

MUCIA in OHIO

Benito Ferreiras, Director of ISA
David Hansen
Mark Erbaugh
William Flinn

Annex 2.
Documents Reviewed

J. Documents Reviewed

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Annex 3.
Questionnaires Used

CUESTIONARIO
UNIVERSITY AGRIBUSINESS PARTNERSHIP
PROYECTO ASOCIADO DE LA UNIVERSIDAD Y LA ABROEMPRESA

Seccion 1

Asuntos Administrativas

Entrenamiento de facultad de tiempo completo. (Entrevista en grupo, quienes estarn disponible)

1. En que consiste su entrenamiento?

2. Comenta sobre el aspecto de investigacion aplicada? Como ha sido diferente y nuevo comparado a su entrenamiento clasico?

3. Comenta sobre el aspecto de ensenanza? Que ha sido nuevo?

4. Que es el asunto de entrenamiento para la introduccion de produccion de cultivos no-tradicionales? Como ha sido desenanda la ensenanza? Cuales han sido los productos nuevos no-tradicionales?

5. Como han introducido el asunto del cezgo feminino? Sobre investigacion, educacion, extencion, y la adopcion de tecnologia.

Entrenamiento de facultad en administracion. (Entrevista en grupo)

6. En que consiste su entrenamiento de manejo y desarrollo instituccional de ISA.

7. Ha sido suficiente para mejorar la administracion de ISA?

Talleres, seminarios, y publicaciones. (Recordar que se han realizado)

8. Numero de talleres, topicos, y asistentes (mujeres y hombres).

9. Numero de seminarios, topicos, y asistentes (mujeres y hombres)

10. Numero de publicaciones, topicas, y su difusion.

Entrenamiento de negociantes agroempresarial y agricultores.

11. Numero de semanas de entrenemiento de gente agroempresarial (mujeres y hombres).

12. Numero de agricultores entrenados (mujeres y hombres).

13. Otros asuntos administrativas.

    a. Establecimiento de programas titulares- horticultura y forestal-y sus asistentes (mujeres y hombres).

    b.

Acuerdo de Asistencia Colaborativo

1.

2.

3.

4.

5.

Financiamiento

CUESTIONARIO PARA LOS AGROEMPRESARIALES

Informacion General

1. Nombre y ubicacion.

2. Direccion

Informacion basica de la empresa.

3. Cuanto tiempo ha estado operando este negocio?

4. Quien es el dueno?
   - Familia _____
   - Gente privada _____
   - Empleados_____
   - Subsidiario, domestico_____
   - Subsidiario, internacional _____

5. Quien la maneja?
   - Su relacion al dueno _____
   - Su entrenamiento _____
   - Su experiencia _____
   - Su nacionalidad _____

6. La empresa tiene procesamiento? Desde cuando?

7. Que valor de bienes tiene?
   - Las facilidades fisicas _____
   - La propriedad (terreno) _____

8. Que clase de entrenamiento recibio de ISA? (Haga lista previa de todos los tipos de entrenamiento)

9. Que influencia ha tenido este entrenamiento?

Si la empresa compra articulos agropecuarios

10. Donde consique los productos agroprecuarios?
    - Plaza de mercadeo local_____
    - Por contrato con productores_____
    - Comprados en el campo (de los agricultores)_____
    - Entregados a la empresa_____
    - Otros (especifique)

11. Que cantidad de producto (crudo) ha comprado el ano pasado?

Producto _____ Cantidad_____
Producto _____ Cantidad_____
Producto _____ Cantidad_____
Producto _____ Cantidad_____

Cuanto ha comprado por medio . Que entrenamiento preveas a los agricultores?

Mercados

15. En que forma ha crecido sus ventas durante los ultimos cinco anos?

16. Como indifique sus nuevos mercados?

17. Como ha asistido su entrenamiento para buscar mercados?

18. Que cantidad de su producto esta vendido en:

Mercado local_____
Mercado regional_____
Al intermediario_____
A otra empresas procesadores_____
A otra empresa exportadora_____
A mercados internacionales directas_____

19. Que cntidad ha vendido el ano pasado?

Producto_____Cantidad_____ Valor_____
Producto_____Cantidad_____ Valor_____
Producto_____Cantidad_____ Valor_____
Producto_____Cantidad_____ Valor_____
Producto_____Cantidad_____ Valor_____

20. Que ha sido su promedio de ventas sobre los ultimos cinco anos?

Producto_____Cantidad_____ Valor_____
Producto_____Cantidad_____ Valor_____
Producto_____Cantidad_____ Valor_____
Producto_____Cantidad_____ Valor_____
Producto_____Cantidad_____ Valor_____

Cantidad y caracteristicas de los empleados

21. Cuantos personas trabaja para le empresa?

Cuantos son mujeres?_____ Hombres?_____

22. Que e el promedio de pago por dia? Varia por tareas? Por mujer/hombre? (Describe)

23. Haga lista del trabajo mensual y por ano y desarrolla un calendario anual del trabajo estaciona

ENTREVISTA EN GRUPO CON FACULTAD DEL ISA
Evaluación del Proyecto Universitario de Asociación Agroempresarial

La Agricultura y su Nuevo Enfoque - Productos no Tradicionales

Cómo ven los cambios de la agricultura de su país? Qué es este movimiento hacia productos no-tradicionales?

En qué forma están ayudando ustedes?

Cuáles son las nuevas oportunidades? Cómo van a llegar a ellas?

Cuáles han sido sus limitaciones en contribuir a la comercialización de la agricultura general del país?

Cómo han ayudado ustedes en este cambio en cuanto a políticas agrícolas? Cuáles medidas de apoyo hacia este cambio han sido estimuladas por ustedes y qué restricciones han impedido el logro de este cambio en la política general del país?

El Papel del ISA

Qué papel ha jugado el ISA en apoyar y estimular este cambio?

Están ustedes preparados para ayudar al país en este movimiento?

Qué es lo que hace falta?

	Suficiente	No suficiente
Entrenamiento profesional científico		
Práctica en su especialización		
Entrenamiento en Desarrollo de Agroempresas		
Planta física-laboratorios, campos, etc.		
Financiamiento para investigación		
Financiamiento para su remuneración		
Capacidad estudiantil-preparación		
Capacidad de aprendizaje		

Es su remuneración competitiva con lo que se podría ganar en otro sitio? Tienen oportunidades fuera del ISA? Por qué siguen ustedes aquí?

Impacto del ISA

Qué impacto ha tenido el ISA en la agricultura del país?

Poco Algo Mucho

En qué forma?

Describa

Empleo/Ingreso
Exportaciones
Producción
Tecnología

Conocen ustedes instancias en las cuales sus actividades o sus consultorías de investigación han cambiado y/o mejorado la producción agrícola en forma directa? Identificar y explicar.

Cuáles son sus esperanzas para el ISA?

Qué espera, personalmente, de su relación con el ISA y el proyecto con USAID?

Annex 4.
Statement of Work

ARTICLE IV - STATEMENT OF WORK

In order to accomplish the above objective, Devres, Inc. shall consider the following:

A. The project goal is to increase non-traditional, commodity-based rural incomes. At the goal level, the validity of the goal statement in the logical framework shall be examined. Specifically, (a) the following measures of goal achievement shall be taken and (b) a determination made regarding their validity as measures of goal achievement:

1. Increased non-traditional crop production, as indicated in Action Plans during period. [Note: Traditional crops are sugar, coffee, cacao and tobacco;

2. Increased employment of outgrowers and day laborers, as indicated in the Action Plan during the period;

3 Increased incomes of rural farm and non-farm residents, as indicated in Action Plan during period.

B. The project purpose is to provide the expanding agribusiness and agro-industrial community with increased trained manpower by institutionally strengthening ISA and CADER. At the purpose level, the validity of the purpose statement in the logical framework shall be examined. Specifically, (a) the following measures of purpose achievement shall be taken and (b) a determination made regarding their validity as measures of purpose achievement:

1. Has the preparation of mid-level technicians specialized in gribusiness and agro-industrial applications to non-traditional commodities been increased and improved?

2. Has the management of ISA and CADER been improved sufficiently to meet institutional development goals through year 2010?

3. Does ISA have a fully functioning Endowment Fund with an increased (i.e. greater than original CADER Project Endowment Fund) value of no less than RD$20 M and established mechanisms to ensure its growth sufficient to meet future core cost needs?

4. Does ISA have a self-sustaining Development Office established, implementing fund raising activities, promoting alumni and community relations and donor coordination?

5. Has ISA established a BS degree in Horticulture and a technical degree level in Forestry?

6. Have ISA and CADER faculty/staff salaries and supplementary income opportunities equaled or exceeded equivalent private sector levels?

7. Are the productive university units (e.g. cannery, dairy, poultry, conference center, soils lab, etc.) under modern private sector management, while providing research/teaching opportunities to ISA/CADER personnel and students?

8. In the face of an apparent overall decline in the demand for a university degree in the agriculture sciences (i.e. declining enrollments in national universities), is there currently and in the medium term sufficient demand for the types of training provided by ISA?

9. As of December 30, 1992, the project has provided 398.8 person weeks of short term technical assistance. What impact has this assistance had on the achievement of the project purpose? Has ISA usefully absorbed this large amount of short term technical assistance?

C. The project outputs are multiple. At the outputs level, the validity of the outputs statement in the logical framework shall be examined. Specifically, (a) the following measures of output achievement shall be taken and (b) a determination made regarding their validity as measures of output achievement:

1. At least 40 full time faculty trained in the preparation of improved applied research, teaching and non-traditional commodity production, with increased awareness of gender issue impacts on research, education, extension and adoption of technology;

2. At least 10 full time staff and faculty trained to manage the business/development administration of CADER;

3. Completion of at least 15 major policy workshops focused upon non-traditional commodities;

4. Completion of 60 policy seminars focused upon non-traditional commodities;

5. Completion of 50 weeks of short cycle training for agribusinessmen;

6. Introduction of 3,000 farmers to non-traditional crop and/or livestock improved practices;

7. Publication and dissemination of 250 research monographs relating to non-traditional crops, agribusiness, and watershed/irrigation management.

D. In addition, the evaluation shall:

1. Address each of the following gender issues:

a) Design, Appraisal and Implementation

How were the interests and role of women (compared to men) taken into account in each of the design, appraisal and implementation stages of the project? In what ways did women (compared to men) participate in these processes?

b) Effects and Impacts

What have been the effects, positive or negative, of the project concerning women's (as compared to men's) access to income, education and training, and with respect to workloads, role in household and community, and health conditions? How were the interests of women (compared to men) taken into account in the evaluation stage? Were significant factors concerning women (compared to men) overlooked at the appraisal stage?

c) Data Availability

Were gender-specific data available for each of the project stages, i.e. design, appraisal/approval, implementation, monitoring and evaluation?

d) Sustainability

How did women's integration in AID activities affect the sustainability of project outcomes? Were outcomes more sustained (or less sustained) when women were taken into account in AID activities? Are the results achieved by the project equally sustainable between men and women beneficiaries?

2. Analyze and determine to what degree the Project, as described in the Project Paper (and official Project documentation), is capable of addressing the USAID/DR Strategic Objectives, as described in the 1992-97 CDSS;

3. Provide specific recommendations regarding the modifications required, if necessary, in the goal, purpose and outputs to address USAID/DR's 1992-97 CDSS.