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HARP

honduras agricultural research project

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Quarterly Report I

Honduras Agricultural Research Project (HARP)

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I. Introduction

The Honduras Agricultural Research Project (HARP) was initiated in the first quarter of 1983. The four members of the HARP team and two of their families traveled to post at San Pedro Sula, Honduras and established temporary housing by January 9. The major portion of the quarter was devoted primarily to accomplishing the myriad details requisite to the initiation of an overseas program. Permanent rental housing was procured for three of the four team members. Furniture was bid, ordered, and some of the furniture was received. Offices were established and partially furnished. Considerable time was devoted to liaison activities among the team and MNR, USAID, and NMSU personnel. Trips were made to various regions and meetings were held with MNR personnel, USAID personnel, and other scientists.

Since the Honduran members of the HARP team were not fully contracted by the end of the first quarter, "the team" refers to only the USA members in this report.

II. A. Activities Related to Expected Outputs as Proposed In The Tentative Plan Of Work

1. FORMULATE AND TEST IN THE DEPARTMENT OF YORO POTENTIALLY ACCEPTABLE IMPROVED PRODUCTION TECHNOLOGIES WHICH REFLECT A MULTIDISCIPLINARY APPROACH.

Two trips were made to Yoro by the team to become more familiar with the geographical area and the attendant agricultural practices, to get acquainted with regional personnel, and to learn more about the on-farm research activities in Yoro.

The first trip was made February 17-18. The HARP team was accompanied by Ing. Juan Salgado, Deputy Regional Director D.A.R. #3, and Dr. Joel Diemer, NMSU-BIFAD Agricultural Economist. Farming areas near the towns of Yoro, Yorito, Morazan, and El Negrito were visited and six farmers were interviewed. Near Morazan, the HARP team visited three cooperatives which were producing tobacco under sprinkler irrigation as their principal crop, but their production practices included corn in rotation.

The second trip was made February 22-24 to attend a special seminar given by the MNR personnel working in Yoro. Presentations were made by the MNR research/extension personnel of their research results and analyses. These reports included a summary of their sondeo, description of their recommendation domain, and results of their first year of on-farm research. It did not appear to the HARP team that on-farm research as practiced by MNR is synonymous with farming systems research. After the presentations, the HARP team members participated in sessions in which MNR technicians evaluated last year's results to determine factors limiting production and alternatives. The above activities constitute a beginning in meeting the expected outputs in numbers 1 and 2 of the plan of work.

2. CONDUCT APPROPRIATE TRAINING SESSIONS FOR MNR RESEARCH-EXTENSION PERSONNEL WORKING IN THE DEPARTMENT OF YORO.

Informal training was included in the meeting held on February 23 as discussed in the previous section. Formal training sessions are not planned until the second or third quarter. USAID has tentatively designated \$50,000.00 of PL 480 in-service training funds to support this phase of the project in 1983.

3. CONDUCT, UPON REQUEST, APPROPRIATE FSR TRAINING SESSIONS FOR MNR PERSONNEL AT THE GUAYMAS RESEARCH EXPERIMENT STATION.

See nos. 2 and 5.

4. CONDUCT, UPON REQUEST, APPROPRIATE FSR TRAINING SESSIONS FOR MNR PERSONNEL IN DESIGNATED AREAS OUTSIDE THE DEPARTMENT OF YORO.

During the period February 6-12, the team visited selected areas in Honduras for the purpose of evaluating the possibilities for HARP participation in the MNR activities of the respective regions. Included in the regions visited were Centro-Oriental (Danli), Oriental (Olancho), Sur (Choluteca), and the USAID offices in Tegucigalpa. Dr. Joel Diemer was in the country in time to make the trips to the Departments of Choluteca and Olancho.

In Danli, MNR personnel, Ings. Ramos and Rivera, presented summaries of research and recommendations in fertilizer application, and weed and insect control of their corn and bean programs. They requested assistance

in the evaluation of economic levels of fertilization; in the determination of economic impacts of proposed changes on the four major crops; and in development of an econometric model for predicting regional and national yields of the basic crops. Ing. Fredrico Rodriguez, entomologist, requested assistance in the development of his research on three major bean pests. Las Acacias Experiment Station in the Jamastran Valley was visited, and it was observed that there were considerable needs for farm equipment, irrigation equipment, and laboratory and research equipment and supplies.

At Choluteca the team, Dr. Diemer, and Mr. Dick Owens from the USAID office, met with Dr. Dan Meckenstock, the INTSORMIL sorghum breeder from Texas A&M, and Ing. Vernon Perez, the MNR rice breeder, and a Peace Corps entomologist, Mr. John Dick. The experimental work on the La Lujosa Experiment Station focused primarily upon the evaluation of sorghum varieties for use in that region. A good portion of the station was under irrigated rice production as a commercial crop to be sold to obtain operating funds for the station. This station also appeared to have pressing needs for various equipment and repairs.

In the Department of Olancho, the team met with MNR personnel working in the areas of Juticalpa and Catacamas. Ing. Elio Duron Andino, Regional Coordinator, presented

information regarding methods used by MNR in the area to conduct on-farm and experiment station research and a brief summary of trials which had been conducted with maize and beans. Two trials with fertilizer rates and row spacing with sorghum were visited. An interesting presentation was given to the team by personnel working with MNR under a contract with the Canadian International Development Agency. This group is evaluating the feasibility of an irrigation project in the area. In Catacamas, the team attended a presentation of research results and recommendations from trials on fertilizer application rates and weed and insect control in corn and beans. Assistance in all four of the disciplines represented by the HARP team was requested by MNR personnel in the Olancho area.

5. ASSIST RESEARCHERS AT THE GUAYMAS EXPERIMENT STATION TO DESIGN, CONDUCT, AND ANALYZE RESEARCH WHICH WILL MEET THE NEEDS OF FSR PROGRAMS.

On February 1, the team, Ing. Antonio Silva, and Ing. Juan Salgado visited the Guaymas Experiment Station where the team observed planting-date trials on yuca (cassava), rice seed multiplication plots, and the very minimal facilities. Two researchers discussed their work. USAID has been committed for a substantial amount of support from PL 480 funds to use in up-grading these facilities and for local equipment and supply purchases. However, these funds will not be available until the second quarter.

6. ASSIST MNR RESEARCH PERSONNEL IN DESIGNATED AREAS TO PLAN RELEVANT AGRICULTURAL RESEARCH.

Little activity was undertaken to assist MNR personnel to plan relevant agricultural research except as described above.

7. ASSIST MNR RESEARCH PERSONNEL IN DESIGNATED AREAS TO EVALUATE AGRICULTURAL RESEARCH RESULTS.

Little activity was undertaken to assist MNR personnel in the evaluation of agricultural research results except as described above. However, Dr. Melchor Ortiz (HARP-TDY Statistician) surveyed computer needs of MNR and CURLA.

8. PUBLISH REPORTS ON METHODOLOGY, RESEARCH RESULTS, AND RECOMMENDATIONS DEVELOPED BY THE HARP TEAM FOR USE BY MNR RESEARCH AND EXTENSION PERSONNEL.

No research reports were completed for publication during this quarter. However, one HARP TDY final report on computers has been published and the NMSU/BIFAD report of Dr. Joel Diemer is in the final stages of preparation.

9. ASSIST IN THE PUBLICATION OF RESEARCH REPORTS DERIVED FROM EXISTING, BUT UNPUBLISHED DATA FROM THE NORTH ATLANTIC COASTAL REGION.

Copies of some unpublished research reports have been received for review; however, it has been very difficult in most instances to obtain copies of even the data from the 1982 trials, let alone that of prior years.

10. PARTICIPATE IN THE UPGRADING OF CURLA'S NEW SOILS LABORATORY.

See no. 12 below

11. PROVIDE TECHNICAL ASSISTANCE FOR THE ESTABLISHMENT OF A COMPUTER FACILITY FOR CURLA.

See no. 12 below

12. ASSIST THE ENTOMOLOGY, WEED SCIENCE, SOIL FERTILITY, AND AGRICULTURAL ECONOMICS PROGRAMS AT CURLA TO STRENGTHEN THEIR RESPECTIVE RESEARCH PROGRAMS.

Four trips were made to CURLA during the quarter by various members of the team. On January 10 Dr. Melchor Ortiz visited CURLA to evaluate the computer needs of CURLA. His report has been forwarded to USAID. Meetings were also held with the Director of the University, the research and teaching coordinators, and various members of the staff. On January 20 and 21, Harper, Sharma, and Walker attended an inauguration and dedication of new classroom buildings. At that time the team met with Dr. Rafael Pietri Oms, USAID consultant to CURLA, and they were introduced to Dr. Antonio Cuaterucci, Director of the USAID mission in Honduras, Ing. Jorge Soto, Director of CURLA, the Rector of the National University of Honduras, and various members of the staff at CURLA. On February 20-21, Walker and Sharma traveled to La Ceiba and met with Ing. Ligia Zuniga de Ramos and Marco Antonio Nunez. At CURLA they met with director Jorge Soto, Research Coordinator Joel Yangali, Interim Soils Department Head Estrela de Lanza, Soils Teacher Luis Alvarez, Librarian John Moren (USAID), and others. The research and student soils laboratories were visited.

CURLA personnel have requested the team's assistance in setting up the new equipment and with soil fertility analytical procedures. To date, professors at CURLA are not required to do research, but a new policy will require each professor to do field research, and they have also asked for assistance in that regard. This effort will rely heavily upon the development of a working relationship with the regional MNR research and extension agents under the contract signed by MNR/PNIA and UNAH/CURLA. Some time was spent in the library checking on the availability of references and journals. On March 18, the team and Drs. Matteson and Huddleston visited CURLA. Discussions were held regarding a potential working relationship between HARP and CURLA and between NMSU and CURLA. Individual HARP members also called upon the departments represented by their respective disciplines. The possibility and function of a new computer facility for CURLA was discussed. USAID has committed considerable funds from PL 480 sources to purchase needed equipment and supplies to support research at CURLA. This will contribute to the accomplishment of HARP's research goals for CURLA.

13. HOLD REGULAR EVALUATION MEETINGS WITH MNR AND USAID PERSONNEL TO FACILITATE PROJECT EVALUATION.

Several meetings with MNR and USAID personnel have been held for the purpose of discussing HARP progress. However, attempts to establish a bi-weekly meeting schedule have failed.

14. PREPARE MONTHLY REPORTS, SIX QUARTERLY PROGRAM REPORTS, AN ANNUAL REPORT, AND A FINAL REPORT DESCRIBING PROGRESS TOWARD PROJECT GOALS AND OBJECTIVES.

Monthly reports for January and February were prepared and submitted by each member of the team. Preparation of the first quarterly report was begun in the latter part of March.

15. PARTICIPATE IN A CID MID-PROJECT EVALUATION.

Not applicable for the reporting period.

16. PROVIDE INFORMATION AND RECORDS NECESSARY FOR USAID PROJECT EVALUATIONS.

Not applicable for the reporting period.

17. PROJECT NEEDS FOR FUTURE POSSIBLE ACTIVITIES IN THE REGIONS AND EXPERIMENT STATIONS.

Not applicable for the reporting period.

B. Other Activities

1. Housing

Considerable time and patience were consumed in a continuing search for permanent housing for the team members, in finding comparable furniture for three bids, and in reaching agreements on lease particulars with house owners. By March 25, three permanent rental houses (Ward, Sharma, and Walker in that order) were contracted and occupied by the team members. The contract for the

Harper house is scheduled to be completed on May 2. The low bid for the four sets of furniture was awarded and most of the items for the three houses were received from the local manufacturer. Lamps and area rugs have not been received as they are to be purchased in the U.S.

2. Air and Surface Shipments

By the end of February, all personal goods shipped by air and sea had been received. By the end of March all four project vehicles had arrived. Considerable time was devoted to chasing the required paperwork to receive the items through Customs at Puerto Cortez, but the greatest problems were encountered when clearing Customs for the unaccompanied air shipments in San Pedro Sula.

3. In-Country Staff Selection

The normal selection and hiring process used by NMSU was used in obtaining the services of a bilingual secretary. The Secretary was selected from among 12 applicants interviewed. MNR hiring procedures were utilized to obtain an administrative assistant.

4. Preparation of Plan of Work

After substantial delays from cancelled appointments and meetings, the first draft of the plan of work was started on March 3. The first draft was prepared in time to review, discuss, and revise it with Drs. Matteson and Huddleston during the week of March 14. The following week, the plan of work was translated into Spanish and

distributed to the proposed Honduran HARP team members (counterparts), MNR Officials, and USAID. The tentative plan of work represents what the team considered to be the consensus of what the current MNR administration wanted and what the team considered to be feasible to accomplish. However, numerous assumptions were made concerning MNR and USAID inputs which must be met to accomplish the objectives of the plan of work. Also the possibility that yet another shift in proposed project emphasis exists with the proposed change of the directorship of PNIA on April 1, 1983.

5. Other Meetings

The National Corn Program Conference was attended by all members of the HARP team, at various times, during the three day meeting held March 8-10.

Drs. Matteson and Huddleston were met at the Tegucigalpa airport on March 14 by Dr. Ward. They met with USAID and U.S. Embassy personnel and returned to San Pedro Sula. The HARP team met with the visiting NMSU personnel for three days reviewing the plan of work and the HARP budget--both the current budget and the budget for the proposed 24 month project, including the proposed six month extension of HARP. The 24-month budget was discussed and tentatively approved in meetings held March 21-22 among Drs. Matteson, Huddleston, Ward, and USAID administrators.

On March 15, a meeting was held by the HARP team and Drs. Matteson and Huddleston with Dr. Myron Shenk, representative of ROCAP, and Ing. Roger Meneses, local representative of CATIE, in which the HARP project, FSR work in Honduras, and possible cooperation between HARP and CATIE were discussed.

On March 23-26, Dr. Ward met with various CATIE researchers in Costa Rica, and obtained numerous relevant publications, and made preliminary contacts to promote cooperative efforts between CATIE and the HARP project.

III. Activities Planned For The Following Quarter

- A. Meetings of the whole HARP team, MNR, and USAID administrators to integrate and finalize the activities of the plan of work.
- B. Meetings with CURLA teaching and research staff to assist in the development of research projects to be conducted in the disciplines represented by the HARP team.
- C. Bi-weekly meetings of the HARP administrators with MNR and USAID administrators to evaluate HARP progress.
- D. Trips to areas in the Yoro Valley for the purposes of planning, developing, and executing farming systems research.
- E. Trips to other areas of the country to assist MNR research personnel to plan relevant and properly designed agricultural research.
- F. Trips to CURLA to provide technical assistance for the establishment of a new computer facility on campus, for upgrading the new soils research laboratory, with equipment

requested through USAID for the various laboratories and programs, with evaluation of the curriculum for their recently initiated career program in agricultural economics, and for the purpose of carrying out no. 2 above.

- G. Establish a series of FSR research plots in the Yoro Subregion.
- H. Initiate planning of "primera" on-farm and FSR research trials for all regions.
- I. Plan and execute NMSU/BIFAD involvement in the areas of plant pathology, nematology, insect taxonomy (at CURLA), and fisheries (at Lake Yojoa).

IV. Progress and Constraints to Progress Toward Accomplishment of Goals and Objectives

A. Progress

The CID/NMSU/HARP has established the following goals: (1) to assist MNR in the development of FSR and technical methodologies that may be used to increase the economic welfare of small farmers and medium-sized farmers in Honduras through increased production of rice, sorghum, corn, and beans in the target areas of the project and (2) to assist MNR in strengthening of institutional and personnel capabilities to conceptualize and carry out research activities to support FSR activities in Honduras.

The objectives of HARP, to accomplish the above goals and progress to date are listed as follows:

1. ASSIST THE MULTI-DISCIPLINARY ON-FARM RESEARCH TEAMS IN THE DEPARTMENT OF YORO TO EXPAND THEIR ON-FARM RESEARCH PROGRAMS:
 - a. became more familiar with certain farming areas and crop production methods in the Yoro Valley.
 - b. held discussions with some farmers in the presence of Extension personnel.
 - c. participated with MNR personnel in helping to determine factors limiting production and alternatives in four distinct areas of the Yoro Valley.
2. IDENTIFY TRAINING NEEDS AND TO IMPLEMENT TRAINING PROGRAMS THAT MEET THE NEEDS OF THE MNR FSR TEAMS IN YORO:
 - a. training needs were generally apparent and identifiable for MNR personnel working in Yoro.
3. STRENGTHEN, WHERE APPROPRIATE, GUAYMAS AGRICULTURAL EXPERIMENT STATION EFFORTS TO SUPPORT ON-FARM, FSR RESEARCH:
 - a. one short visit by the team and MNR administrators was made, but there was little, if any, progress toward objective 3.
 - b. it was obvious that considerable farming and research equipment will be needed before this experiment station can be expected to increase its research output.

4. OFFER TECHNICAL ASSISTANCE TO MNR RESEARCH AND EXTENSION GROUPS IN OTHER AREAS OF HONDURAS:
 - a. became more familiar with farming areas in other regions of the country, specifically the areas around Danli and the Departments of Choluteca, Olancho, Norte, and Litoral Atlantico.
 - b. listened to and discussed presentations and/or summaries of crop production methods and research results by MNR personnel in the above regions.
 - c. visited various experiment stations and discussed research trials with the researchers.
5. DELIVER PROGRAM RESULTS TO THE EXTENSION SERVICE:
 - a. not applicable at this time.
6. INCREASE NMR CAPABILITIES IN THE NORTHERN AND ATLANTIC COASTAL REGIONS TO ANALYZE AND SYNTHESIZE EXISTING UNPUBLISHED RESEARCH DATA:
 - a. some existing data was perused, but no new analyses were initiated.
 - b. considerable difficulty was encountered in obtaining copies of data for analysis.
7. ASSIST CENTRO UNIVERSITARIO REGIONAL LITORAL ATLANTICO (CURLA) TO ESTABLISH THEIR SOILS LABORATORY, ESTABLISH COMPUTER FACILITIES, AND STRENGTHEN RESEARCH PROCEDURES IN ENTOMOLOGY, WEED SCIENCE, AND SOIL FERTILITY:
 - a. met with CURLA Director, Research Coordinator, Academic Dean, and other staff and discussed all

items in Objective no. 7; their needs and desires for assistance were established; a schedule for future visits was arranged.

b. short meetings were held by individual team members within their respective departmental discipline, which initiated the strengthening of research procedures; possible research projects were discussed; dates for future discussions were set.

8. ASSIST THE MNR IN DEVELOPING LONG-RANGE PLANS FOR FSR PROGRAMS:

a. Not applicable at this time.

9. EVALUATE PROGRAM PROGRESS AND IMPACT:

a. HARP progress was discussed in numerous meetings with USAID and MNR personnel.

B. Constraints

1. Administrative

a. USAID

During this quarter HARP established itself in San Pedro Sula. Three problems arose with respect to USAID. First, determination of an adequate housing allowance resulted in some delays in obtaining permanent housing. The housing allowance issue has been resolved satisfactorily for all individuals concerned.

The second problem was with respect to the processing of project and personnel materials

through customs. Initial problems were encountered with clearing the project and personal air shipments in San Pedro Sula. After a delay, all items were released from customs but it was necessary to retain and pay a customs broker to process the clearing of these items through customs. This problem will be avoided in the future by bringing all major air shipments through Tegucigalpa.

The clearing of shipments through Puerto Cortez has been erratic. This has involved the documentation process rather than the physical release and delivery of the materials. The first two project vehicles to arrive in country and the van continued to be without license plates, which has resulted in the regular stops to check for documentation of the vehicle and driver by the police.

The third problem area is with respect to communication. The project staff needs to receive more information with respect to AID activities in Tegucigalpa on matters related to HARP.

b. MNR

The integration of HARP into the administrative structure of MNR in the Northern region has been slower than anticipated. This has resulted in two major problem areas. First, regional counterparts to work with the respective HARP team members have

not been assigned. Three of the four Honduran team members were unofficially assigned and present in San Pedro Sula by the end of the quarter. Also, more vehicles are needed to adequately transport the Honduran counterparts.

The second problem generated by the administrative isolation has been the limited access to physical facilities at MNR. This is discussed below.

c. CID/NMSU

The HARP CID/NMSU staff in both Honduras and the U.S. encountered some problems in communication and follow-up documentation. A portion of the communication problems were resolved when the project office equipment was finally released from customs and the project was provided with office space and furniture. Both offices have initiated procedures to improve in these areas. By the end of the quarter, progress and improvement were noted.

2. Personnel

The only personnel issues during this quarter has been the assignment of the HARP Honduran team members and regional counterparts and the delay in obtaining a report on the TDY efforts of Dr. Melchor Ortiz.

Delay in the contract for the administrative assistant forced the Chief and Assistant Chief of Party

to assume many of the minor administrative duties of the project. By the end of the quarter, the administrative assistant was working on the project and the next quarter should see a significant improvement in this area.

3. Physical Facilities

- a. Office space is not adequate at this time. At the end of the quarter, offices are needed for the Honduran team members. The functioning of HARP would be facilitated if the HARP offices were located contiguous to the MNR Regional Director's Office.
- b. By the end of the quarter, HARP did not have a telephone line. Telephone service is available only on a single extension line for the building in which HARP offices. Incoming calls are difficult to receive, and outgoing calls are possible only if the line is not occupied in the main office.
- c. Office equipment has been a problem during the quarter. The administrative assistant needs a desk. The difficulty in using the photocopy service at MNR has resulted in delays and unnecessary expenses for HARP.
- d. It has been largely impossible to obtain copies of reports of research from prior years let alone 1982 data to assist in analyses and for use in planning. This may be due, at least in part, to the rapid

turnover of personnel in both research and extension. Unless a system of data storage and retrieval is established within PNIA this will continue to be a major constraint to agricultural development in Honduras and will severely limit the impact of this or any future project.

V. Recommendations

A. Training

An agreement should be made between MNR and USAID on the amount of funds available to support the training programs proposed to be a part of this project. Much better use of the team's time can be made if the trainees are brought to a central location, preferably San Pedro Sula, since the northern zones are receiving primary emphasis.

B. Additional Technical Assistance

USAID has agreed to keep the short-term consultant positions open as to the specialties involved. This will allow the team to obtain assistance in whatever specialties are required.

However, it appears to the team that the proposed plan of work will require more than the current four members if the stated objectives are to be met. At the present state it will be difficult to adequately serve even in an advisory capacity let alone actually be involved in the day-to-day activities of a farming systems research project in any one area.

C. Improved Management Procedures

1. One of the most serious problems that MNR faces is rapid turnover of personnel and ways around this problem should be found.
2. A related problem is the storage and retrieval of past research results. It appears that much of the past year's research results became unavailable when the employees changed locations or left MNR.
3. The counterpart contract issue should be resolved and the leader officially designated. The duties and responsibilities of the CID Chief of Party and the Honduran Chief of Party should be determined.
4. At least during the next quarter, bi-weekly meetings are needed between HARP, MNR (both national and regional), and USAID administrators. The resulting dialogue could help in resolving the goals, objectives, and activities of the project.
5. A mechanism should be devised whereby project office, communications, equipment, and supply problems can be resolved.
6. It appears that the difficulty that MNR is having in agreeing on the HARP plan of work stems largely from a great need for technical assistance in many disciplines and several geographic areas. Therefore, long range planning should be initiated to either plan for an extension of this project and/or create other projects to satisfy the agricultural research needs of the country.