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Case Study No. 11

Honduras Agricultural Research Project (635-0203)<sup>1</sup>

by

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<sup>1</sup>This CDIE Working Paper is one of the case studies prepared for a cross-cutting analysis of A.I.D. FSR/E projects, A Review of A.I.D. Experience with Farming Systems Research and Extension Projects (A.I.D. Evaluation Special Study, forthcoming). The 12 FSR/E projects reviewed in this series are:

Botswana Agricultural Technology Improvement (633-0221)  
Gambia Mixed Farming and Resource Management (635-0203)  
Lesotho Farming Systems Research (632-0065)  
Malawi Agricultural Research (612-0202)  
Senegal Agricultural Research and Planning (685-0223)  
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Nepal Agricultural Research and Production (367-0149)  
Philippines Farming Systems Development-Eastern Visayas (492-0356)  
Guatemala Food Productivity and Nutritional Improvement (520-0232)  
Honduras Agricultural Research (522-0139)  
ROCAP Small Farm Production Systems (596-0083)

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Honduras Agricultural Research Project (522-0139)

The Agricultural Research Project (522-0139), hereafter the Project, was initially authorized, as a four-year project, in August 1978, for \$1,914,000. The Project Grant Agreement was signed with the Government of Honduras (GOH) in September 1978. The Project's goal was "to increase the incomes and employment opportunities of small traditional and agrarian reform farm families" (PP, p. 6). The Project's purpose was "to assist the Government of Honduras expand its agricultural research service and make it more responsive to the technological needs of small traditional and agrarian reform farmers" (PP, p. 6).

Honduras' agricultural research service was known at that time as the National Agricultural Research Program (Programa Nacional de Investigaciones Agrícolas or PNIA). PNIA was located in the Ministry of Natural Resources (Ministerio de Recursos Naturales or MRN). In 1983, PNIA was renamed the Department of Agricultural Research (Departamento de Investigaciones Agrícolas or DIA).

In October 1982, USAID/Honduras signed a technical assistance (TA) contract with the Consortium for International Development (CID), with New Mexico State University (NMSU) as lead university. At this point, the Project began to be referred to as the Honduras Agricultural Research Project (HARP). Depending on the time frame and context, this case study will use either the Project or HARP.

The Project was evaluated three times. The first evaluation (A.I.D., 1980), scheduled for November 1979, was not conducted until February 1980, 19 months after the Project began and approximately midway through the anticipated LOP. The second evaluation (Beausoleil, et al., 1981), an annual progress evaluation, was conducted 14 months later in April 1981. The third evaluation (Hansen, et al., 1984) was conducted in January 1984, almost three years after the second evaluation, one year after HARP's Contract TA team arrived in Honduras, and six months before the PACD of July 1984. The possibility of a six-month extension of HARP was being considered at the time of the third evaluation.

This case study draws extensively on the evaluation report prepared by the third evaluation (Hansen, et al., 1984). Galt, et al. (1982) provides an excellent description of the history of the restructuring of PNIA and the organizing of FSR, all of which was occurring just prior to or at the same time as the start up of the Project.

Concept - What was the basic technical idea underlying the project?

The Project represented "the introduction of a very new concept, multidisciplinary farm-level research, into the existing Honduran research and extension institutions" (A.I.D., 1980). However, the seeds of FSR/E were planted in 1977, almost two years before the Project was initiated (Galt, et al., 1982). Until that time, PNIA had been largely oriented toward on-station and single commodity research, although a CATIE-sponsored regional project was already developing an on-farm research program in Honduras.

In 1977, a young Honduran, who had earned his doctorate in plant pathology at Cornell University and had conducted his dissertation research at CIMMYT in Mexico, returned to Honduras to work in PNIA. Drawing on experience he had gained while working as a member of a multidisciplinary research team at CIMMYT, plus his knowledge of the on-farm research program being developed by ICTA in Guatemala and by CATIE in Honduras, this Honduran convinced the MRN and several colleagues to help him establish an interdisciplinary Central Unit for Technical Support (Unidad Nacional de Apoyo Te'cnico or UNAT) within PNIA.

UNAT's purpose was to foster the establishment of a multidisciplinary, on-farm approach to agricultural research in order to provide a better understanding of farmer problems and a more effective utilization of on-station research capabilities to help solve those problems. However, some PNIA staff in the Basics Grains Program, already using an earlier, CIMMYT-originated on-farm approach that emphasized developing technological packages for significant and dramatic yield increases, were opposed to the new approach. "Most of the proponents of the new approach were trained at CIMMYT where they had learned that the CIMMYT on-farm approach which was being used in Honduras was no longer recommended by CIMMYT" (Beausoleil, et al., 1981:4).

In January 1978, PNIA and the International Agricultural Development Service (IADS), published a report on agricultural research in Honduras. The report identified four basic factors or elements of strategy to strengthen PNIA and increase PNIA's impact on farmers' yields and national production. These four factors were: (1) a farmer-focused, integrated multidisciplinary approach to research and technology transfer; (2) a strong national experiment station network; (3) manpower development; and (4) closer links with domestic and external institutions. This report became a factor in influencing USAID/Honduras to design the Agricultural Research Project (the Project). Indeed, this 125 page report was included as Annex M of the PP (A.I.D., 1978).

In designing the Project, USAID/Honduras sought to strengthen and expand PNIA's farm-based research initiative. The Project was authorized in August, 1978, and the Project Grant Agreement with the GOH was signed in October 1978, providing grant funds totaling \$1,914,000 for TA, training, and logistical support. The Project sought to establish multidisciplinary, on-farm research teams in all seven regions of Honduras. Project funds were to be used for long- and short-term TA, participant and in-service training, and logistical support (vehicles and equipment). GOH funds were to support counterpart personnel.

But there was resistance within the GOH to the Project bringing in the large TA team of expatriate advisors that had been envisioned in the PP. The Project's design had envisioned at least three long-term (36 w/m) TA specialists. The Hondurans preferred that the Project's grant money be used to assist in covering the project's operating expenses. The GOH eventually agreed to an arrangement whereby two TA specialists who had participated in ICTA's on-farm program in Guatemala would be made available to assist PNIA in implementing the Project. One of these individuals, the PNIA Advisor, was provided by the Rockefeller Foundation; the other, the PNIA Technical Advisor, was hired by USAID/Honduras on a Personal Services Contract.

During the Project's early months, PNIA prepared several important documents. The Documento Básico (1979) detailed the organizational structure of PNIA, while the Guía Metodológica (1979) described on-farm research methods from the diagnostic stage through farm testing and validation stages. Also, UNAT began to train the on-farm research teams.

In February 1980, the first evaluation found that the Project was developing normally but suffering from organizational and budgetary problems (Laird, et al., 1980). The problems included difficulties in coordinating a national research program administered through decentralized regional directorates that control most of the research budget; loss of highly qualified national researchers and rapid turnover in research personnel because of low salaries and delays in reimbursing expenses; frictions between Honduran and expatriate TA personnel; and planning deficiencies caused by personnel turnover and fiscal uncertainty.

Further, with an across-the-board budget cut in the SRN, the funds available to meet PNIA's operating expenses had been drastically reduced. By the time of the second evaluation in April 1981, there was "little indication of government support for the research program" (Beausoleil, 1981:5). In the face of these problems, one TA specialist had already left, one was preparing to leave, and none were being replaced. The two advisors cited administrative problems, poor management of their work, and personal conflicts with Honduran counterparts as the reasons for their early termination (Hansen, et al., 1984:12)

Reviewing the situation, the second evaluation made several recommendations that were based on the assumption that the GOH was committed to allocating enough resources to the MRN/PNIA to increase the number of direct hire contracted professional positions to at least 70. The government's commitment to effective agricultural research would also be demonstrated by the development and approval of a longer term plan of action for PNIA and by signing personnel contracts. The evaluation point out that decisions on the recommendations had to be made quickly if the momentum of the research in progress were to be maintained. The key recommendations made were:

- Project funds should be used to provide logistical support to on-farm researchers, with these funds complementing, not replacing, GOH commitment of funds to PNIA.
- Project funds should be used to contract long-term TA personnel for UNAT, with at least six disciplines being represented, including plant pathology, entomology, agricultural economics, biometrics, soil management, and weed control. The positions should be filled by Hondurans but expatriates should be hired if Hondurans were not available. The salaries of Honduran and expatriates should be comparable based on training and experience. UNAT personnel should prepare an in-service training program, and Project funds should be used to cover the entire cost of the training program.
- MRN should require PNIA to prepare better plans by the end of August 1981, and long-term TA personnel should be brought in to design a planning system and help prepare long-, medium-, and short-term plans.

The second recommendation provided the basis for the TA contract for the Honduran Agricultural Research Project (HARP) phase of the Project. The salary guidelines had been provided because of PNIA's reluctance to contract expatriate advisors. This reluctance, the evaluation noted, was due to a sense of jealousy over the disparity in salaries between expatriates and nationals. Compared with expatriates, Honduran government employees and contractors were being paid little and sporadically. The evaluation noted: "Until conditions were such that a reasonable number of well-qualified Honduran research professionals felt secure in their own long-term commitments to the research program, ...research planning and results would be largely ineffective" (Hansen, et al., 1984:12).

Thus, the second evaluation noted its concern for the degree of commitment by the GOH to the MRN and the PNIA. As the third evaluation summarized the issue,

Commitment translates into adequate and stable funding.

That funding improves professional salaries, permits long-term planning, lowers the turnover of personnel and facilitates the interaction of Honduran and expatriate advisors. The [second] evaluation team did not find the commitment (Hansen, et al., 1984:12).

Commitment to the Project's on-farm research program suffered a further set back in 1981. Following the change of the government and the cut in PNIA's budget, the young Honduran who had been instrumental in initiating the program resigned his position in PNIA in order to accept a job offer from the Escuela Agricola Panamericana (Zamorano). Further, by late 1981 or early 1982, the two TA persons (the PNIA Advisor and the PNIA Technical Advisor) had departed. These events led USAID/Honduras to insist that the Project needed to bring in a TA team. While the Project grant funds could not be used to cover operating costs, the Mission proposed that PL 480 local currency could be used to help cover Project operating costs. The GOH finally agreed that the Project could bring in a TA team.

In March 1982, almost a year after the Project's second evaluation in April 1981, USAID/Honduras issued a Request for Technical Proposals (RFTP) for the Honduran Agricultural Research Project (HARP). In October 1982, USAID/Honduras and the Consortium for International Development (CID), with New Mexico State University (NMSU) as lead university, signed a TA contract (hereafter Contract) to continue the original Project under the title of Honduran Agricultural Research Project (HARP). USAID financial support for the Contract consisted of a total of \$1,085,099 of grant funds remaining from the original Project budget. While the Request for Technical Proposals envisioned HARP as a two year project, the final Contract was for eighteen months (January 1983-July 1984).

Design - How was this basic technical idea translated into a project?

The Project's third evaluation (first evaluation of HARP), conducted in January 1984, noted that HARP had been designed and implemented in "a series of ill-coordinated stages."

The first stage was the 1981 evaluation.... The second stage was the USAID Request for Technical Assistance (RFTP) and the CID/NMSU response. The third stage was a change in scope initiated by [PNIA]. The fourth stage was the Contract itself. The fifth stage was a USAID-initiated change in scope after the CID/NMSU team arrived in Honduras, and the sixth stage was a subsequent series of DIA-initiated changes in scope of work (Hansen, et al., 1984:13).

The RFTP saw the Contract as a continuation of the Project and a response to the needs identified in the second evaluation in 1981. The RFTP called for four long-term TA persons (two years each): weed control specialist, agricultural economist, entomologist, and soil fertility specialist. The long-term advisors were to be part of the UNAT. Further, the individual members of UNAT, including Hondurans, were to be placed in specific regions where their skills were most needed, but all members of UNAT would meet regularly as a unit to deal with national-level problems, plan for the training needs of PNIA personnel, and advise the PNIA Director on program requirements.

A significant change occurred between the 1981 evaluation and the 1982 RFTP. While the evaluation had expressed a preference that Project funds be used to hire (contract) highly-qualified Hondurans for UNAT, the RFTP did not specifically request Honduran professionals. Further, given the usual RFTP distribution and response channels, the RFTP was

essentially stating that these four key professionals were to be expatriates. Four expatriate professionals as a Contract team with its Chief of Party, supporting funds and short term advisors, will, in most cases, form an independent unit. That unit negotiates with other units but is not easily incorporated or digested unless the other unit is well-organized and very dynamic. UNAT itself was no longer a functioning unit and needed organization and staffing, so UNAT was not going to digest the Contract team. The most probable structural outcome would be that the Contract team would be the core and effective leadership of UNAT, and Honduran professionals in UNAT would come to be counterparts or secondary (Hansen, et al., 1984:13).

However, the RFTP did not recognize this likely outcome but implied that the TA team was to form part of UNAT as a larger (Honduran and expatriate) multidisciplinary unit. Also, there was a question of whether PNIA could easily manage the TA team, since PNIA itself was suffering from a lack of funding, planning, and staffing continuity. While PNIA leadership had earlier objected to expatriate TA advisors, the RFTP proposed a large, independent, expatriate unit within PNIA. Such a unit, however, would likely become a continuing source of structural conflict.

The third evaluation also pointed out another shortcoming in the RFTP, namely, that HARP would have a short life (two years). The 1981 evaluation had emphasized the need for long-term planning and long-term stability and training for PNIA's Honduran personnel. Rather than addressing these long-term issues, the RFTP called for unused Project funds to be used in a short-term response to the TA need specified in the Project's third evaluation. However, as the third evaluation noted, two years is too short a time for effective TA, especially when the UNAT is

supposed to be planning and advising about farming systems research, an evolving approach to smallholder research and extension. When technical advisors have clear, discrete, technically-specific tasks to perform, they may be able to accomplish this in a short time. More time is needed when these advisors are involved in institution-building and multidisciplinary team activities which involve group planning and leadership" (Hansen, et al., 1984:14).

While the contracting of CID/NMSU proceeded smoothly, an important change occurred before the TA contract was signed; this change was not reflected in the Contract. Instead of having the TA team operate at a national level as advisors and trainers, PNIA requested that the team restrict its activities to the Yoro Valley in Region 3. The third evaluation could not confirm the reason for this change but speculated that while the perceived importance of developing the Yoro Valley may have been primary, the TA team's expatriate nature may also have been important.

Another important change occurred in the Contract which, rather than being for two years, was reduced to 18 months due to insufficient USAID/Honduras funding. Commenting on this change, the third evaluation noted: "If two years is too short, 18 months is a ridiculously short time for such assistance" (Hansen, et al., 1984:15). Further, the evaluation noted this change should have been recognized as an early indication of the funding difficulties that HARP would continue to encounter.

Implementation - How was the project managed by the host-country implementing agency, the TA team, and USAID?

Upon the TA team's arrival in Honduras in January 1983, the team found that USAID had made another change in HARP's design. The team was now to devote ten percent of its time to technical support and teaching at the Centro Universitario Regional del Litoral Atlantico (CURLA) in La Ceiba (Region 4). The third evaluation noted that there was no indication that this change had been discussed with or agreed to by PNIA.

This change was significant in two ways. One, the hierarchical position of HARP was totally confused. If HARP was a joint USAID-MRN endeavor, then how could HARP be assigned by USAID to work outside of MRN? CURLA falls under another Ministry. How could USAID unilaterally change the mandate of UNAT (or a major component of it)? . . . The second point concerns time and energy. A too-short contract was intentionally cut even more by assigning 10 percent of staff time to other responsibilities. . . . Who was safeguarding [PNIA] and HARP priorities?

During the initial months of 1983, the TA team was involved

in orienting itself. HARP's Honduran staff, now defined as counterparts to the TA team, were being hired and were relocating to San Pedro Sula in Region 3. PNIA's director resigned to become the counterpart agricultural economist. He also served as HARP's Assistant Chief of Party and head of the Honduran team.

HARP's scope of work was again changed during this same period, from a regional focus back to the original national focus, whereby HARP personnel would provide technical support to existing multidisciplinary teams in Olancho, Danli, Choluteca, and La Ceiba, as well as working in the Yoro Valley and at CURLA. However, the scope was subsequently again restricted, this time to focusing on two northern regions (3 and 4). By the time of the third evaluation, the scope of work had again been amended to include some responsibility for a national training program.

By this point, the third evaluation noted, the Contract had suffered so many changes of direction that the Hondurans had become confused about the goals and status of HARP. Indeed, the evaluation reported that the evaluation team's members had been asked by DIA (formerly PNIA) and MRN officials to explain to them how HARP related to the DIA. "Any clear mandate and status were lost in the shuffling of HARP from part of UNAT, national level, to regional and CURLA responsibilities, and back and forth again" (Hansen, et al., 1984:16).

The second evaluation in 1981 had recognized that PNIA's evolving smallholder-oriented agricultural research program needed to be supported by long-term, institution-building and critical commitments by the GOH. However, as the third evaluation pointed out:

That recognition was lost by the time the RFTP was written. The stress on GOH commitment was absent, as was the stress on Honduran professional leadership. . . . The real thrust of the Project was to institutionalize better methods of agricultural research. To institutionalize methods means to make them part of the normal, ongoing routine. Part of that process of institutionalizing UNAT, making that specialized technical support and training unit part of the regular DIA bureaucracy so that it continued as part of MRN after Project assistance ended. Honduran technical leadership and GOH funding commitments are essential for institutionalization to succeed (Hansen, et al., 1984:17).

But HARP had deviated from the objective and direction of institutionalizing a better method of agricultural research. The Contract provided short term (18 months) expatriate TA and technical leadership to Honduran counterparts but the connection between UNAT and the TA team had been lost. As the third evaluation noted:

None of the HARP professionals occupy regular DIA line positions. There are no institutionalized positions so no one is really counterparting anyone. Counterparting refers to the situation where one person has a regular position and is advised by someone. In HARP no one has a regular position; all are paid, directly or indirectly, by USAID, and none have established DIA jobs.

UNAT does not really exist except on paper, so there is no obvious bureaucratic home for HARP. Although HARP works and is housed in region 3...it does not answer to the authority of the MRN Regional Director. Although HARP is apparently an MRN group it works semi-autonomously, publishes reports that do not credit MRN or DIA as a sponsor, [and] deals with non-MRN institutions such as CURLA (Hansen, et al., 1984:17).

The third evaluation also brought to light that, as far as the MRN Regional Director was concerned, HARP had been initiated in the region with no advance notice and no additional budgetary provisions for counterparts and office space. Further, while the Regional Director is responsible for implementing activities in the region, a considerable amount of HARP's activities had been coordinated at the national level without prior consultation with the Regional Director.

HARP's rolling redesign and implementation resulted in negative consequences in four areas.

1. Drafting and Approval of Work Plans

On the issue of drafting and approval of work plans, the third evaluation concluded that HARP had made a mistake.

HARP team members originally tried to prepare a work plan for the life of the Contract..., but the plan was not accepted. Pressed by time because the team wanted to get trials in the ground, the team decided to submit more limited work plans that only covered the first (primera) cropping season of 1983. The primera plan was accepted, and work began. The new work plan only covered the second (postera) cropping season, and now the team is finishing the preparation of a work plan to carry them through the expected end of Contract in 1984.

The HARP team's desire to get to work is understandable and commendable. . . . They were pressed for time since the Contract was too short, the comprehensive work plan had been rejected, and the time to plant...was approaching, so they compromised by preparing a work plan limited to the primera season. That was a mistake (Hansen, et al., 1984:19).

In the view of the third evaluation, the HARP team should

have waited until all had agreed on a comprehensive plan. USAID, DIA, and CID/NMSU should have insisted that HARP's participants reach an agreement about the project's objectives during the Contract's 18 months. "Accepting piecemeal plans (season by season) postponed indefinitely the need for sponsors and team to reach some agreement on the purpose and utility of this Contract" (Hansen, et al., 1984:19). Further, the evaluation reaffirmed the institution-building nature of the Project. Indeed,

one of the major faults of DIA was in planning. Planning problems are apparent in the several DIA-initiated shifts of direction for the Contract and in the failure to coordinate better with the MRN Regional Director before the HARP team arrived.... The Contract cooperated in a planning failure when short-term work plans were prepared and used as the basis for beginning field work. Questions of purpose, leadership and lines of authority should have been settled then. The issue of whether or not HARP was UNAT needed to be determined since this affected allocation of time to research, technical support, training and planning (Hansen, et al., 1984:19).

## 2. Formation of an Integrated Team of Hondurans and Expatriates

The Contract's ill-coordinated design and implementation, including the failure to agree on an 18-month work plan, delayed the formation of an integrated team of Hondurans and expatriates. Further, the situation "left too much room for individual interpretations and disagreements, particularly concerning HARP's role in modifying customary patterns of research" (Hansen, et al., 1984:20).

USAID/Honduras provided the funds for all HARP personnel. However, while the funds for the TA team members flowed rather quickly from USAID/Honduras to NMSU to the TA team members, the funds for the Honduran personnel flowed rather slowly from USAID/Honduras to the Finance Ministry to the MRN to the DIA to the Honduran personnel. While the TA team personnel had no problems in receiving their pay, the Honduran personnel faced consistent delays of several months in receiving their pay and had never received any reimbursement for travel expenses. While USAID/Honduras assured the third evaluation team that sufficient funds had been transferred to GOH, HARP's Honduran personnel were informed in late January 1984 that there was no more money for their salaries. On this issue, the evaluation stated:

These financial concerns preoccupy the Hondurans in HARP, require a lot of administrative attention by the Hondurans and by the Chief of Party, and inhibit or preclude the Hondurans' willingness to incur travel costs. Not only does this differential willingness to travel separate the team but the differential treatment given to Hondurans and non-Hondurans creates and accentuates a division along nationalistic lines. This is an old problem..., and it reflects a continuing lack of commitment to DIA by GOH. The Contract cannot support a team that is separated between expatriates who receive salaries and Hondurans who do not. This is diametrically opposed to the major purpose and thrust of the Project that gave rise to this Contract (Hansen, et al., 1984:20).

3. Leadership Responsibility for Developing FSR Methodology and Modifying the Accepted Methods

The third evaluation noted Honduras' pioneer role in establishing and developing a research methodology that is now being called farming systems research (FSR). Indeed, the original Project's intent had been

to support Honduras' pioneering efforts in developing this more effective research methodology, and anyone who worked in DIA (then PNIA) before 1977 may attest to the changes that...occurred since then. This Contract was to continue the evolution of a more effective set of methods by providing technical support to existing regional teams, by upgrading the technical levels of DIA staff through in-service training, and by participating in planning (Hansen, et al., 1984:20-21).

As the evaluation noted, Honduras had been a pioneer in the 1970s in evolving an indigenous FSR model: on-farm (not just on-station), multidisciplinary research on basic grains using farmer surveys (sondeos) as guidelines. But HARP's efforts to advance the pioneering work in FSR was constrained by practical institutional issues. Specifically, there were questions and disagreements over (1) the degree of leadership that the TA team was to exercise and (2) whether and how much the existing DIA methodology needed to be revised.

Discussing these issues, the evaluation referred to the existing Honduran methodology as Pioneering FSR (PFSR) in order to distinguish it from the FSR methodology described in current literature. The evaluation described PFSR as "a sequence of trials" as follows:

It starts with many treatments, complex design, on station and controlled entirely by researchers. As more knowledge is accumulated, the better treatments are moved off station and tested under conditions more similar to those under which the ultimate clients (Honduran farmers) will be facing. The number of treatments is fewer; designs are simpler; farmer management is increased and DIA control decreased; and the treatments are exposed to a broader range of environmental variables (Hansen, et al., 1984:48).

However, the third evaluation noted that the TA team's work plans and quarterly reports amply documented the team's belief that there were serious weaknesses in PFSR which HARP reports referred to as on-farm research or OFR, and that OFR should be replaced by FSR. Indeed, at the time, even the MRN had recommended that another approach, the Enlace Tecnológico (Technological Coordination) program from Olancho, be adopted through the country.

As the evaluation also noted, the TA team believed that the DIA and USAID/Honduras had contracted CID/NMSU to provide technical leadership as well as support and that the TA team agricultural economist (rather than the team as a whole) was primarily responsible for providing that leadership. However, based on the prior actions of DIA, the evaluation concluded that there was "a strong resistance on the part of Hondurans in DIA, including at least the majority of those employed by HARP, to CID/NMSU assuming the leadership in implementing FSR and modifying PFSR" (Hansen, et al., 1984:22).

Analyzing this situation, the evaluation concluded that the DIA, CID/NMSU, and USAID/Honduras had failed from the beginning to clarify the mandate and design of HARP, and that this failure had led to continued confusion in the operation of the Contract.

The Contract does not specify any leadership in defining or instituting FSR; it requests support and guidance from CID/NMSU professionals as part of a larger UNAT. Although in fact HARP is UNAT, and CID/NMSU leads HARP, another fact is that DIA has consistently attempted to maintain and assert Honduran leadership (Hansen, et al., 1984:22).

The evaluation concluded that DIA-initiated changes in HARP's scope of work may have been "designed to thwart what DIA leadership saw as undesirable CID/NMSU leadership" (Hansen, et al., 1984:22).

Disagreements over methodology were evident in the relationship between the TA team's agricultural economist (who had been responsible for initiating FSR) and the Honduran economist who headed HARP's Honduran team and had previously been the National Director of DIA (PNIA). The evaluation noted that the disagreements over PFSR and FSR had been primarily responsible for USAID/Honduras' decision not to renew the Honduran economist's contract when it expired at the end of December 1983. Dissatisfaction over the PFSR-FSR issue apparently also led CID/NMSU's agricultural economist to depart Honduras at approximately the same time. While personality conflicts may have been involved, the evaluation reported "that the disagreement and opposition of Honduran and CID/NMSU team members" continued even after the two original economists had departed (Hansen, et al., 1984:23).

#### 4. Contract Administration

The third evaluation found that the TA team's Chief of Party (COP), an entomologist, estimated that 75 percent of his time had been spent on administration, while approximately 50 percent of the agricultural economist's time had been similarly occupied. Obviously, administration of the Contract had been made more difficult and time-consuming by the repeated changes in Contract design and scope of work, by the continuing disagreements over research methodology, and by the continuing problems of salaries and reimbursements for HARP's Honduran employees.

The scope of this problem, and its existence in this Project as in other USAID/Mission projects, prompted the third evaluation to make the following observation:

It is surprising that USAID contracts do not recognize the essential importance of administration and automatically provide for administrative assistance or specifically set out terms of reference for the COP. This Contract, like many others, only requests technical people for technical work as if COP responsibilities were inconsequential. In many instances this results in a COP assuming that the technical work is what counts and trying to minimize administrative tasks. In other instances this results in a technically qualified COP who does not really have the necessary administrative skills or experience (Hansen, et al., 1984:24).

Evaluation - How was the project's performance measured or assessed?

The third evaluation of HARP leaves the reader with the impression that the project had been less than successful in developing FSR. Indeed, the evaluation team noted:

Since the MRN had substantial difficulties in assembling a

counterpart team, communications and hierarchies were not well-established between HARP and MRN, and the FSR effort was curtailed. The CID/NMSU economist became more involved in administrative matters and in CURLA related work, substantially reducing the time allocated to field work. It is unfortunate that the disagreements over FSR led to that time going into CURLA and HARP administration rather than into identification and evaluation of promising technologies (Hansen, et al., 1984:30).

A review of two of the project outputs (agricultural economics research and dissemination) provides a better understanding of why HARP did not made greater progress in FSR/E.

### 1. Agricultural Economics

Agricultural economics, as the evaluation noted, is "one of the most important components of technology design" (Hansen, et al., 1984:30). PNIA (DIA) had requested TA in this field in order to train field technicians in the economic assessment of their on-farm results. In reviewing HARP quarterly reports for the preceding year, the third evaluation found that most of the expatriate agricultural economist's time had been allocated to generating a farm registry sheet, implementing a microcomputer system and microcomputer training at CURLA, and attending to administrative duties. Little or no time had been allocated to economic analysis of existing data, partial budgeting of alternative technologies to identify the best potential recommendations, or training of DIA staff in the collection and analysis of economic data from agronomic trials. Assessing the work that the TA agricultural economist had actually completed relative to the Contract's scope of work for the agricultural economist, the evaluation concluded:

The Contract ends in a few months. . . . Presently, most of the items listed in the Contract scope of work have not been properly addressed. Unless the economic analysis of field trials is used for training and is integrated with Sondeo data for comprehensive analysis, the scope of work will remain unfulfilled (Hansen, et al., 1984:31).

Further, as the evaluation noted, aside from the participation of HARP's agricultural economists, there had been "little socio-economic input into UNAT" (Hansen, et al., 1984:50).

### 2. Dissemination

The third evaluation noted that HARP personnel had a responsibility to assist in disseminating PNIA (DIA) research results to agricultural extension (DEA) agents. HARP's technical work plan identified this as steps or phases (7) and (8), as follows:

7. Extension of appropriate techniques and technology through the target area; and
8. Diffusion of technology which has been demonstrated to farmers to be appropriate and acceptable to the recommendation domain within the target area.

The evaluation found that these two phases had been deleted from the HARP work plan because of the short duration of the Contract. Although the HARP team recommended that phases (7) and (8) be carried out by permanent MRN research and extension staff working in the target area, the evaluation noted that this recommendation lost sight of

the constant dissemination of research results and techniques in all FSR experiments through informal discussions, farmer participation, neighbor observation and the "ripple effect". This may be the most effective means of dissemination of well-executed on-farm research and is a major argument for increasing farmer active participation in on-farm research (Hansen, et al., 1984:41).

The third evaluation, as also the two preceding evaluations, had been a process evaluation. As such, these evaluations had provided useful information for assessing the conceptualization, design, and implementation of the HARP; however, being conducted during the course of a project, these evaluations did not provide any systematic information on the extent to which the project had been successful in developing improved technology or transferring this technology to the project's clientele group.

In retrospect, HARP (the Project) contributed an important step in the development and strengthening of Honduras's capability to carry out FSR/E. While consensus as to the methodology for conducting on-farm research in Honduras had not yet been reached by the second or third evaluations, the experience gained during HARP had contributed to the evolution of a better appreciation of the requirements for effective on-farm research. The second evaluation noted in this regard that:

The on-farm research capability of PNIA that is developing is not exactly that which was envisioned in the Project design. The intent of the Project was to train multidisciplinary teams to conduct on-farm research. Experience has shown that what is needed are not teams but individuals trained to do on-farm research. Supporting these individuals, a multidisciplinary team is needed to provide assistance in the diagnostic, testing, or analytic stages of on-farm research. The technical support unit (UNAT) is in fact the multidisciplinary team which responds to the specific needs of individuals doing on-farm research (Beausoleil, et al., 1981:25).

If the second evaluation was encouraged by the Project's concept of the requirements for effective on-farm research, the third evaluation was not impressed by how effectively HARP had been implemented. In this regard, the third evaluation noted:

The failure by USAID and GOH to coordinate and clarify the scope and direction of work by HARP has been evident.... The sponsors have not taken the time to plan and coordinate together. Regular meetings have not been held in which appropriate USAID, DIA, other MRN and HARP personnel could effect this coordination and clear up some of the confusion. . . . The insignificance of this Contract to USAID was also demonstrated by the lack of [USAID] participation in the evaluation, including the absence of the Project Officer from the meetings...at which the preliminary report of the evaluation team was presented (Hansen, et al., 1984:43).

Institutionalization - How did the project provide for the implementing agency to develop a sustainable capability to continue to perform the types of activities supported by the project?

The seeds of institutionalizing FSR/E in Honduras were planted by a number of Hondurans in collaboration with several projects, including HARP, the earlier work of CATIE, the "enlace tecnológico" program in Olancho, and the farming systems research program under the University of Kentucky, International Sorghum and Millet (INTSORMIL) project. One indicator of the extent of institutionalization of FSR/E in Honduras was the increase from approximately 12 percent in 1976 to over 52 percent in 1981 in the proportion of trials conducted on farm (Beausoleil, et al., 1981).

For PNIA (DIA) to conduct on-farm trials in all seven regions, at least 28 people needed to be trained and hired. As noted in the second evaluation, the Project Agreement had called for an increased in PNIA's staff by 28 technicians over the LOP. By the time of second evaluation, PNIA had already increased its staff by 33 technicians but only four of these persons were permanent employees. The other 29 were on contract and their status was uncertain from year to year.

After the second evaluation, did the process of institutionalizing FSR/E continue to develop in the MRN/DIA? The third evaluation team reported that it was "not convinced" that the GOH and USAID/Honduras had made serious commitments to the HARP Contract or that the GOH had made a serious commitment to DIA or the Project in general (Hansen, et al., 1984:43).

Specifically, the GOH "never...made nor carried through" with a financial commitment to the Project (Hansen, et al., 1984:43). The evaluation noted the delayed and sporadic salary payments, travel reimbursements, etc. Also, with a pending PACD of June 1984, USAID/Honduras was still uncertain in January 1984 about whether the Project would be extended for six months.

The third evaluation noted the Project and Contract had been designed to build and strengthen Honduran agricultural research institutions. However, the evaluation noted:

This effort is doomed without GOH commitment, DIA leadership, and the participation and leadership of Honduran scientists. . . . The most important financial issue is Honduran salaries. . . . Continued uncertainty over salaries and over tenure...tends to minimize if not eliminate Honduran participation and leadership in HARP. More important is the continued constraint to Honduran research careers and longer term planning, ...and the continued frustration of Project institution-building efforts (Hansen, et al., 1984:43, 45).

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## Annex A. Project Description Sheet.

This Project Description Sheet lists the core, operational, and generic constraints identified in this project, per the following codes: core (C), operational (O), and generic (G). A positive (+) sign after a constraint indicates that the project was effectively coping with the identified constraint.<sup>3</sup>

Core Constraints (C)

- C.1 Farmer Orientation
- C.2 Farmer Participation
- C.3 Locational Specificity of Technical and Human Factors
- C.4 Problem-Solving Approach
- C.5 Systems Orientation
- C.6 Interdisciplinary Approach
- C.7 Complementarity with Commodity and Discipline Research
- C.8 Technology Testing in On-Farm Trials
- C.9 Feedback to Shape:
  - a. Agricultural Research Priorities
  - b. Agricultural Policies

Operational Constraints (O)

- O.1 Stakeholder Understanding of FSR/E
- O.2 Agricultural Research Policy/Strategy Defining Role of FSR/E
- O.3 Long-Term Commitment of Resources
- O.4 Existing Research Capability and Shelf Technology
- O.5 Consensus on FSR/E Methodology
- O.6 Capability to Process Farming Systems Data
- O.7 Consensus on Criteria for Evaluating FSR/E
- O.8 Links with Extension
- O.9 Links with Agri-Support Services
- O.10 Links with Farmer Organizations

Generic Constraints (G)

- G.1 Project Management Structure
- G.2 Government Funding to Meet Recurrent Costs
- G.3 Staffing with Trained Manpower
- G.4 Management of Training
- G.5 Management of Technical Assistance
- G.6 Factors Beyond a Project's Control

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<sup>3</sup>An analysis of these constraints in 12 FSR/E projects appears in A Review of A.I.D. Experience with Farming Systems Research and Extension Projects, A.I.D. Evaluation Special Study (forthcoming), available from A.I.D.'s Document and Information Handling Facility (per instructions on last page of this report).

Honduras/ARP - Agricultural Research Project (522-0139)

Initial Authorization: 1978 (for 4 years)

Goal: "to increase the incomes and employment opportunities of small traditional and agrarian reform farm families"

Purpose: "to help the Government of Honduras expand its agricultural research service and make it more responsive to the technological needs of small traditional and agrarian reform farmers. The approach to be followed -- multidisciplinary farm-based research -- is already underway on a small scale."

Outputs:

1. Multidisciplinary teams trained and work;
2. Research stations providing support to multidisciplinary teams;
3. Delivery of research results to farmers and extension service; feedback to international research community;
4. Long-range research strategy and master regional plan; public-private sector research coordinating mechanism.

Implementing Agency: National Agricultural Research Program [Programa Nacional de Investigaciones Agrícolas (PNIA)], Ministry of Natural Resources. PNIA was later renamed the Department of Agricultural Research [Departamento de Investigación Agrícola (DIA)].

TA Contractor: Consortium for International Development, with New Mexico State University as lead university.

Evaluations: Three -- The first evaluation (A.I.D., 1980), scheduled for November 1979, was not conducted until February 1980, 19 months after the Project began and approximately midway through the anticipated LOP. The second evaluation (Beausoleil, et al., 1981), an annual progress evaluation, was conducted 14 months later in April 1981. The third evaluation (Hansen, et al., 1984) was conducted in January 1984, almost three years after the second evaluation, one year after HARP's Contract TA team arrived in Honduras, and six months before the PACD of July 1984.

Constraints: C.6, O.2, O.3, O.5, O.8, G.1, G.2, G.3, G.5.

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