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COMMUNICATION FOR TECHNOLOGY TRANSFER IN AGRICULTURE PROJECT (AID/S&T 936-5826)

CTTA

End of Tour Report

Honduras Pilot Communication Project

September 1986 - May 1990

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This report summarizes the activities and plans completed during this period. Contributors include:

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ACRONYMS

CTTA	Communication for Technology Transfer in Agriculture
MNR	Ministry of Natural Resources (Ministerio de Recursos Naturales)
EAP	Agricultural Panamerican School (Escuela Agrícola Panamericana)
ENA	National School of Agriculture (Escuela Nacional de Agricultura)
ACD	Agricultural Communication Department
INTAGRO	Instituto Nacional de Tecnología Agropecuaria
MIPH	Manejo Integrado de Plagas en Honduras
UDA	Unidad de Adaptación de Tecnología
FHIA	Honduras Agricultural Research Foundation
CEDIA	Agricultural Documentation and Information Center
ESNACIFOR	Escuela Nacional de Ciencias Forestales

EXECUTIVE SUMMARY

This document presents the Communication for Technology Transfer in Agriculture (CTTA) Project objectives and summarizes its major accomplishments during the period September 15, 1986, to May 31, 1990. The document also contains a brief presentation of observations and recommendations of the CTTA field advisor for future activities.

CTTA may have begun as a media effort, but it became something much more--an integrated research and extension system for farmers. Several evaluations have demonstrated that, in Honduras, the project has succeeded in developing a systematic technology transfer process that,

- is sensitive to farmers' felt needs,
- integrates extensionists, researchers, and farmers,
- provides for a high degree of farmer participation,
- utilizes existing personnel and resources in an orderly and cost-efficient manner, and
- inspires a high level of motivation and enthusiasm among all project participants.

The approach is now being institutionalized within the Ministry of Natural Resources (MNR) almost in its entirety.

As result of the CTTA Project activities, Honduras now has more well trained technicians in the MNR, Escuela Agrícola Panamericana (EAF), and Escuela Nacional de Agricultura (ENA), who will be able to continue using the CTTA Project methodology in training new personnel and students. In the past three years, the MNR has also strengthened its capacity to disseminate agricultural research results to ever more Honduran farmers--both men and women--through the use of appropriate communication technologies based on a combination of individual, group, and mass media (radio and graphic printed materials). Inside the MNR the Agricultural Communication Department (ACD), has been organized and institutionalized, both at the national and regional levels. Finally, the CTTA Project has made significant contributions to other agricultural projects within the country.

It has not been easy to achieve these accomplishments, and several concerns remain. Among them are:

- the lack of a more permanent and stable budget for the MNR's ACD unit, which so far has been financed with Pl-480 funds;

- the urgent need of introducing changes within the current MNR organizational structure, and particularly ACD's participation within The Instituto Nacional de Tecnología Agropecuaria (INTAGRO);

- the lack of stable jobs for ACD's staff trained by the CTTA Project;

- the lack of appropriate technologies for small farmers living in hillside areas; and

- the need to continue installing a systematic and participatory management-by-objectives approach in extension areas where CTTA has not yet worked.

Finally, based on the experiences and accomplishments of the CTTA Project in Honduras, it is hoped that international donors and Third World country governments will begin to recognize the CTTA process as one of the most appropriate approaches for the transfer of improved agricultural technology. The CTTA approach can be applied by private and public institutions that carry out agricultural and natural resources technology transfer programs, with greater chance of success than other approaches.

I. PROJECT OBJECTIVES

The CTTA Project used an innovative approach in Honduras to support agricultural technology transfer to farmers. The participatory and adaptive approach combines behavioral analysis, social marketing and instructional design techniques. The approach is characterized by:

- a strong client-based orientation;
- use of multi-channel communication strategies and methods that improve the quality and coverage of extension-type programs at costs affordable for sustained use by developing nations;
- strength of research/extension/farmer linkages and networks;
- continuous monitoring and frequent evaluation of activities in order to incorporate required changes during the transfer campaign; and
- emphasis on training at all levels.

The general objectives of the MNR CTTA pilot project were:

- to develop and demonstrate a more effective technology transfer methodology that provides better quality and greater coverage by MNR's extension service and strengthens the agricultural research/extension and farmer linkages and networks;
- to institutionalize this technology transfer methodology into the MNR system and
- to diffuse the technology transfer methodology nationally and internationally.

The specific objectives of the pilot project were:

- to promote the adoption of new and/or underutilized agricultural practices among farm families by developing a more effective transfer of technology methodology;
- to verify the impact of the transfer of technology methodology through evaluation;

- to strengthen the networking methods and procedures to improve linkages among research, extension, other providers (e.g., input suppliers) and the farmer;

- to institutionalize the technology transfer methodology developed through the pilot project within the MNR, and

- to disseminate the findings of the project to the professional community both nationally and internationally.

II. CTTA SCOPE OF WORK

The major activities contemplated in the CTTA scope of work were made explicit in the Letter of Understanding signed by the Minister of Natural Resources and the USAID/Honduras Mission Director. These activities were:

- to assist and develop a transfer of technology methodology to support extension and associated programs in the transfer of appropriate agricultural technologies to the farmer;

- to institutionalize the transfer of technology methodology developed through the pilot project within the MNR;

- to develop the MNR's Department of Agricultural Communication to support technology dissemination from MNR's research units to subsistence and small commercial farmers;

- To supply basic communications equipment for the Ministry's DCA at Tegucigalpa and the pilot project headquarters in Comayagua as required for project implementation;

- to carry out on-the-job training for MNR staff in DCA and the pilot region, and from other regions, as appropriate.

III. ACCOMPLISHMENTS

A. KEY PROGRAM ACCOMPLISHMENTS

The major accomplishments of the CTTA Project include:

- Development and implementation of a new transfer of agricultural technology approach,
- Institutionalization of that approach within the MNR,
- Training of ACD staff, extensionists, and researchers,
- Strengthening of research-extension-farmer linkages and networks,
- Design, organization and implementation of the MNR's Agricultural Communication Department (ACD),
- Training of EAP and ENA students in the CTTA approach,
- CTTA expansion into new MNR regions,
- Dissemination of the CTTA Project findings,
- Support to other USAID/Honduras projects.

These topics are taken up in order, below.

1. DEVELOPMENT AND IMPLEMENTATION OF A NEW TRANSFER OF AGRICULTURAL TECHNOLOGY APPROACH

One of the most important achievements of the CTTA Project in Honduras was the development and implementation of a new transfer of agricultural technology approach which overcomes many of the traditional problems of the extension system.

The CTTA five-step methodology involves: developmental investigation; planning or strategy development; materials preparation; implementation; monitoring and evaluation. (These steps have been described in detail in the CTTA Project Manual). In Honduras, the steps were carefully followed in the preparation of the Transfer of Agricultural Technology Projects Guide. This methodology was fully incorporated in 1988 in the MNR's Unified Methodology for Services Delivery, which was officially adapted by the MNR in December of 1988.

Today, the CTTA technology transfer approach is being used not only in the pilot site--the MNR's Comayagua region--but also in the regions of Litoral Atlántico, Olanchito, San Pedro Sula, Danli, and Olancho.

The extension model in existence "before CTTA" can be characterized as a top-down planning approach which put great emphasis in the number of activities that should be carried out at the field level. Farmers' participation was minimal; interaction between agricultural researchers and extensionists was rare; the use of communication media, such as radio and graphic printed materials, was scant; and the technical and methodological training for agricultural researchers and extensionists had not been the most appropriate. As a result, extension services were poor, and farmer yields-per-hectare remained very low.

The CTTA approach for technology transfer addresses these deficiencies. It integrates agricultural researchers, extensionists, and farmer clients into a cohesive technology transfer team. In particular, the CTTA approach gives special attention to farmers' participation in the developmental investigation (diagnostic survey), programming, implementation, and evaluation of the activities. Moreover, it uses a combination of individual, group, and mass media--especially radio and graphic printed materials--in order both to improve coverage among rural families and to improve the teaching-learning process of new technologies. And it takes previously uncoordinated activities and resource allocation decision making and places them in an orderly, efficient sequence. The approach also entails more disciplined and realistic extension work plans and allows for rapid adjustments in transfer activities in order to deal with shifting conditions, such as fluctuations in the price of agricultural inputs and pest and disease attacks on crops.

According to the CTTA midterm evaluation, a corollary of these activities is a marked improvement in extensionists' self-confidence, motivation, and job performance. Improved extension performance, through the CTTA approach, has translated also into increased farmer appreciation of, and confidence in, extensionists.

2. INSTITUTIONALIZATION OF THE CTTA TECHNOLOGY TRANSFER APPROACH WITHIN THE MNR

A study of CTTA's institutionalization process in Honduras was carried out for the period February 1987 to December 1988. (Hernández, 1988). According to this report, the CTTA approach had introduced significant changes in extension activities in the Comayagua pilot region. Institutionalization was most obvious at the local extension office and regional levels. There were also some significant national level accomplishments. A service delivery methodology for which CTTA is practically responsible, and which includes a CTTA approach to extension, was adopted as the national service delivery of the MNR.

At the writing of this report, institutionalization of the CTTA approach is well advanced not only inside the MNR but also in other institutions such as the Agricultural Panamerican

School (EAP) in El Zamorano. At least four major factors have made this possible:

- since the project's inception, CTTA personnel worked very closely with MNR's National and Regional Directorate in order to institutionalize activities;

- long-and-short-term technical assistance devoted much time to training activities in order to develop a national capacity to continue activities after assistance ends;

- the project was designed from the beginning to work with national resources in order to assure that project activities would not be discontinued when CTTA technical assistance ends;

- the CTTA methodology has been institutionalized according to phased approach: the project first sought to introduce a few core changes, more comprehensive modifications were later introduced.

At this point, the ACD has established its new regional communication offices in other regions, including Olancho, Litoral Atlántico, San Pedro Sula, Danli, and Olanchito. Based on the work performed by a well trained national team and the support of the new MNR's authorities, institutionalization of the CTTA approach is well advanced in Honduras.

3. TRAINING OF ACD'S STAFF, EXTENSIONISTS AND RESEARCHERS

The CTTA approach puts heavy emphasis on training activities at all levels. A summary of the CTTA training activities in Honduras appears in Appendix V.

CTTA training activities were characterized by the following:

- training activities were always guided by the previously identified needs of the participants--ACD staff, extensionists, planners, researchers, farmers;

- CTTA frequently used the "training of trainers approach" with good results;

- training activities were always coordinated with MNR's Human Resources Department in order to avoid duplication of effort;

- CTTA used a variety of training approaches, including seminar-workshops, courses, and field demonstrations--events were conducted at MNR's facilities in order to reduce costs and ensure participation and replicability;

- CTTA training activities were very practical and always used local talent. Of particular interest was the participation of extensionists, researchers, rural correspondents, and ACD staff in the diffusion of their experiences to other MNR employees inside and outside of the pilot region;

- training activities were supported by detailed documentation and followed by regular monitoring activities in order to assure the correct application of the new knowledge and skills by the participants.

Content of the training for ACD staff included:

- the agricultural communication process,

- media selection,

- media characteristics, advantages, and disadvantages,

- communication planning strategies,

- pretests of media,

- media design and production techniques,

- communication research techniques,

- adaptation of technical contents,

- the CTTA technology transfer approach.

Specific, in-depth training was provided to personnel of each ACD section. For instance, those who were involved in communication research activities received special training in sampling techniques and statistics. Those who were working with the adaptation of technical content received detailed training in how to define behavioral and educational objectives and in the preparation of texts. Likewise, radio producers received intensive training in different radio production techniques.

Extensionists were trained by CTTA personnel in various topics, including developmental investigation; design, implementation, and evaluation of the technology transfer projects; communication planning and its application to technology transfer activities; media selection; use of individual, group and mass media; group, dynamics and technical writing.

MNR agricultural researchers improved their communication skills through CTTA training activities related to speech and group dynamics, visual aids, and technical writing.

4. STRENGTHENING OF RESEARCH-EXTENSION-FARMER LINKAGES AND NETWORKS

The importance of a close, well-established relationship among the key players in the agricultural technology system is emphasized within the CTTA approach.

Due in part to its client orientation, the CTTA approach has facilitated and strengthened linkages among farmers, extensionists, researchers, and communicators in Honduras. Integration began in the Comayagua region with the identification of the existing farming production systems in a particular area, and determination of farmers' of knowledge, attitudes, and behavior regarding certain agricultural practices and problems identified by them. It is only through cooperation among farmers, extensionists, researchers and communicators that current and potential agricultural production problems can be determined and analyzed and alternative solutions found.

In all Comayagua extension offices, and recently in the new areas into which CTTA has expanded, there are good examples of integration. For example, in Siguatepeque, farmers had been using several insecticides to control "Palomilla" (Plutella Xilostella). The insecticides and doses used were, in the majority of cases, inappropriate for human beings. Cases of people affected by consumption of contaminated cabbage had been reported to the Ministry of Health. Working together, extensionists, farmers, researchers, and communicators identified, analyzed, and prepared a transfer of technology project to improve farmers' knowledge, attitudes, and behavior regarding the control of this pest through the use of DIPEL, which does not affect humans.

Another example of how the CTTA project sought to strengthen linkages was the establishment of the Rural Correspondents Network radio program. Community members select a representative--man, woman, or youth--who works as a volunteer link between the community, the extension agency, and the agricultural radio programmers. He or she asks other community members about their information needs regarding new agricultural practices and problems with crops and animals. Answers are prepared by the extensionist and diffused through the radio program in order to help other farmers of the region who face similar problems.

As expected, some farmers' questions elicited no easy answers from either the extensionist or the agricultural researcher. In these cases, the search for a solution was extended to other agricultural research sources, such as FHIA, EAP or the International Research Centers. Depending on the nature and importance of the problem, new agricultural research projects might be established in order to satisfy farmers' identified needs.

A recent evaluation of the Rural Correspondents Network has shown that this important mechanism has strengthened the MNR's capacity to transfer agricultural technology.

Strengthening the linkages among key groups remains a challenge. Much more should be

done in the future, especially at the educational agricultural education centers. Agricultural researchers are often overly concerned about their status with respect to farmers, extensionists, and communicators and this can become a barrier to sharing knowlege and experience. This situation is common not only in Honduras, but also in other countries.

5. DESIGN, ORGANIZATION AND IMPLEMENTATION OF THE MNR'S AGRICULTURAL COMMUNICATION DEPARTMENT (ACD)

When project implementation began, the Ministry of Natural Resources did not have a communication unit. For this reason, the first step was to organize the Agricultural Communication Department (ACD) following the recommendation stated in the Letter of Understanding.

Once established, ACD acted as the MNR unit in charge of implementing the project. It was organized into four sections, according to function:

- Communications Research,
- Adaptation of Technical Contents,
- Media Production, and
- Documentation and Information Center.

ACD's policies and strategies were defined and implemented through these sections.

Communication Research staff are in charge of developmental investigation to define the appropriate communication strategies for a particular setting. Studies include farmers' knowledge, attitudes, and behavior regarding new agricultural practices.

Staff in the Adaptation of Technical Contents section collects the agricultural research results and recommendations directly from the researchers and adapts them in "popular" language for men and women farmers.

In the Media Production Section, printed audiovisual materials, including radio programs are produced following a series of steps including pretests with representatives of the intended audience.

Personnel working in the Agricultural Documentation and Information Center (CEDIA) distribute materials produced by the Ministry of Natural Resources. This section offers all the regular services of an agricultural library.

Specific projects at the national and regional levels were outlined for each of these sections. The adoption of this management-by-objectives approach permitted the project to train and

use the scarce human resources in an efficient manner.

At the regional level, ACD's office in Comayagua was initially organized along the lines of the national pattern, with one representative per section. During the life of the project, personnel trained in the Comayagua office later became in charge of other regional ACD offices.

6. TRAINING OF EAP AND ENA STUDENTS IN THE CTTA APPROACH

Honduras does not have a national rural communication faculty for agricultural communicators. For this reason, the country depends heavily on training agronomists, engineers, and journalists in order to conduct its agricultural technology transfer programs.

In this situation--and to facilitate institutionalization of the CTTA approach--the CTTA Project coordinated activities with the Agricultural Panamerican School (EAP) in Zamorano and the National School of Agriculture (ENA). These institutions graduate more than 70 percent of Honduras' extensionists and agricultural researchers each year. Moreover, the CTTA field director promoted the CTTA approach among other educational institutions in Honduras, such as ESNACIFOR (Escuela Nacional de Ciencias Forestales).

The work with EAP's extension teachers and students not only prepared them to work with the CTTA technology transfer approach from a methodological perspective, but also facilitated the EAP's work with the communities of Moroceli, Guinope, and Tatumbla through its Rural Development Program. In this way, CTTA contributed to the expansion of the EAP's services to communities of small rural farmers.

CTTA personnel trained extension teachers and students of ENA in the CTTA approach during 1988 and 1989. However, in 1990, internal political changes within the institution have affected the continuation of CTTA activities with extension teachers and students.

Finally, it is important to mention that some students trained by CTTA personnel, both at EAP and ENA, now work as regular ACD employees, while others are involved in agricultural research or extension activities within the MNR extension service or other public and private institutions.

7. CTTA EXPANSION TO NEW MNR REGIONS

Despite the short life of CTTA, its activities have been expanded to new MNR areas, thanks to the results obtained in the pilot site, the dedication of CTTA personnel, and the support of MNR officials.

CTTA initiated activities in the MNR Comayagua region in September 1986 in the San Luis, El Rosario, and San Jerónimo extension offices. One year later, the CTTA Project initiated

activities in Ajuterique and Las Lajas; and by March 1988 the project included the remaining five extension agencies in the region.

As more project personnel were trained, CTTA extended its activities to the region of Olanchito, in coordination with the MNR departments of agricultural research and extension. The first training seminar-workshop was held in Olanchito in July 1988.

In September 1989, CTTA initiated activities in the Northern Region of Honduras, in cooperation with the MNR General Direction of Livestock. That same month, CTTA officially initiated activities in the MNR regions of Danli, Choluteca, Olancho, and Santa Barbara. (By the end of January 1990, change in government officials affected CTTA activities in the Choluteca region. It is expected that these activities will be reinitiated before the end of 1990.)

At present, CTTA activities are being carried out in the following regions: Comayagua, Danli, Olancho, Olanchito, Litoral Atlántico, and the Northern Region in San Pedro Sula. These are the most important agricultural production regions of the country, where most basic grains are grown.

8. DISSEMINATION OF CTTA PROJECT FINDINGS

The CTTA Project has disseminated its findings nationally and internationally. At the national level, project findings have been shared with extensionists and agricultural and social researchers working in the Ministry of Natural Resources, in agricultural universities, and in USAID/Honduras.

Dissemination of CTTA activities has been carried out through national and regional seminars-workshops, lectures, meetings, and through graphic printed and audiovisual materials. The CTTA Project also produced a fourteen-minute promotional audiovisual, with versions in English and Spanish. A list of the CTTA/Honduras publications appears in Annex 6.

At the international level, CTTA personnel lectured (and distributed CTTA graphic materials) at the First International Symposium on Farmers' Participation in Agricultural Research and Extension, held in October 1989, in Tegucigalpa. The CTTA field director also participated at the Mobilizing Agricultural Technology to Meet the Central American Challenges Seminar, organized by IICA in San José, Costa Rica, during March 1990.

In Washington, the Academy for Educational Development (AED) produced and distributed regular monthly reports and news briefs during the life of the project.

Finally, the CTTA field director in Honduras will participate in a round-table discussion on Farmers' Participation in Agricultural Research and Transfer of Agricultural Technology during the Farming Systems Symposium to be held in East Lansing, Michigan in October 1990.

9. SUPPORT TO OTHER USAID/HONDURAS PROJECTS

Since the beginning, the CTTA Project in Honduras has enjoyed a close relationship with other USAID/Honduras projects such as Proriego, MIPH (Manejo Integrado de Plagas en Honduras), and the UDA (Unidad de Adaptación de Tecnología).

In particular, CTTA helped Proriego in the design and implementation of its national promotional campaign, in the production and distribution of graphic printed and audiovisuals materials, and in communication training activities for Proriego staff and extensionists.

CTTA also joined efforts with the EAP's MIPH Project in order to disseminate new agricultural practices related to basic grains pest prevention and control. This cooperative effort was very important for both projects. On one hand, MIPH found a way to "spread" the message to many more farmers around the country through the CTTA communication strategies. And on the other hand, CTTA found a permanent source of technical information about major concerns of farmers.

The CTTA and UDA projects joined efforts to promote and disseminate new, appropriate technologies to men and women farmers. Several graphic materials were pretested and produced jointly.

Finally, CTTA has benefited these and other USAID/Honduras projects through the dissemination of several "how to" communications training manuals and bulletins.

10. OTHER CTTA ACHIEVEMENTS

Beyond the key program accomplishments described above, other important CTTA achievements include the following:

- In Honduras CTTA not only supported the production of basic grains and vegetables but also worked with the MNR General Direction of Livestock. The CTTA approach was adopted within the MNR technology transfer program to prevent and control external cattle parasites such as "garrapata" (Boophilus sp) and "torsalo" (Dermatobia Hominis) in several regions of the country.

- Since its inception, the CTTA Project supported all MNR actions to protect the natural resources in the country. In particular, CTTA personnel participated in the design and implementation of annual national communications campaigns devoted to forest and water resources protection. CTTA produced several printed and audiovisual materials, including radio programs and radio spots.

11. SUMMARY OF TASKS ACCOMPLISHED

The major accomplishments of the CTTA Project in Honduras can be summarized as follows:

- development, implementation and institutionalization of a new transfer of agricultural technology approach;
- institutionalization of the CTTA technology transfer approach within the MNR;
- training of MNR DCA staff, extensionists, and researchers in communications and transfer of technology issues;
- strengthening of research-extension-farmer linkages and networks;
- design, organization, and implementation of the MNR Department of Agricultural Communication as a permanent communication unit inside the Ministry;
- training of EAP and ENA students in the new transfer of agricultural technology approach;
- expansion of the CTTA Project to regions located outside the pilot site;
- dissemination of CTTA Project findings to the professional community;
- support to other USAID/Honduras projects such as Proriego, MIPH, and UDA;
- development of the Rural Correspondents Network in the Comayagua region;
- application of the CTTA methodology to livestock production;
- support to MNR national campaigns to protect Honduran natural resources;

- development of relations with MNR personnel and CTTA counterparts, including:

  Lic. Misael Bueso, DCA-CTTA's Director

  Ing. Roberto Villeda, Minister Advisor

  Ing. Enrique Arias, MNR General Director of Agriculture (September 1986 to July 1987)

  Dr. Leopoldo Alvarado, MNR General Director of Agricultural Research (September 1986 to July 1987) and MNR General Director of Agriculture (August 1987 to January 1990)

  Ing. Mario Daccaret, MNR General Director of Agriculture (February 1990 to present)

  Ing. Bonifacio Sánchez, MNR Director of Extension (September 1986 to August 1988)

  Ing. Justo Torres, MNR Director of Extension (August 1988 to present)

  Dr. Roduel Rodríguez, MNR Director of Agricultural Research (August 1987 to present)

  Ing. Arturo Galo, MNR General Director of Livestock (February 1987 to February 1990)

  Ing. Manuel Wills, MNR General Director of Livestock (March 1990 to present)

- development working relations with other agricultural research and/or extension institutions in the public and private sector, such as EAP, ENA, COHDEFOR, ESNACIFOR, CURLA, FHIA and INFOP;

- establishment of working relations with USAID/Honduras by providing routine updates and monthly reports;

- coordination of field management, short-term technical assistance, and evaluation visits;

- coordination of promotional activities of the CTTA Project;

- participation in the development and implementation of the new MNR organization.

IV. CONCERNS AND RECOMMENDATIONS

The CTTA Project in Honduras has been highly successful. There are nonetheless several concerns that require special attention from the Ministry of Natural Resources and USAID/Honduras in order to guarantee that the MNR Agricultural Communication Department continues the institutionalization of the CTTA methodology across the country, and also continues offering the communications technical support required by other MNR units. These concerns are discussed in this section.

A. DCA BUDGET

The CTTA Project has been financed in Honduras with PL-480 funds. Multiple efforts in the last three-and-a-half years have tried to secure a more permanent and stable budget without major success.

RECOMMENDATIONS:

- The Ministry of Natural Resources should request from the Ministry of Finance national funds--not PL-480 funds--for the DCA unit. In this way, future changes in USAID/Honduras policies about the use of PL-480 funds will not jeopardize CTTA activities within the ministry.

- The MNR ACD should continue to look for additional sources of financial support, especially for the acquisition of new communications equipment for ACD regional offices, as well as for other regular expenses. Several initiatives are already well advanced, e.g., with the Japanese Government, which has offered Lps 500,000 for this purpose. Follow-up on this negotiation is essential.

B. REORGANIZATION OF THE MINISTRY OF NATURAL RESOURCES

Today it is well accepted among USAID/Honduras and GOH authorities that the current MNR structure is not the most desirable. It is also recognized that public administration problems have negatively affected the generation and transfer of agricultural technology in the country for a long period of time. Among the strategies to improve this situation is the creation of INTAGRO (Instituto Nacional de Tecnología Agropecuaria). At the time of this report there was still no final decision about the organization of INTAGRO and the destiny of current MNR units, including the Agricultural Communication Department (ACD).

RECOMMENDATIONS:

- Include the Agricultural Communication Department within INTAGRO as the technical unit in charge of supporting other units in communications aspects, such as communication planning, rural communication research, adaptation of technical contents, and media production and distribution.

- Maintain the current ACD technical personnel within INTAGRO.

- Strengthen INTAGRO dissemination of information capacity through the modernization of the ACD communication equipment.

- Concentrate ACD actions in the geographical areas covered by INTAGRO.

C. ACD's HUMAN RESOURCES

One of the major difficulties faced by the CTTA Project in Honduras was the lack of well trained rural communicators. In part this was due to the fact that no rural communication faculty exists in Honduras. To overcome this situation, journalists, agronomists, engineers, and other professionals have been trained by the CTTA Project as rural communicators. More than 95 percent of these technicians are now working as contractors and not as ACD permanent employees. Future stability of personnel, therefore, constitutes a serious concern.

RECOMMENDATIONS:

- Maintain the current CTTA-trained personnel within the MNR Agricultural Communication Department, offering them permanent positions (*acuerdos*), and, if possible, other incentives such as new training opportunities and internal promotions. These actions will eventually reduce the possibility that these valuable staff move to other institutions.

- Strengthen and maintain the ACD internal communications training program in which new personnel are trained in the CTTA methodology.

- Continue working with the agricultural educational centers, such as ENA, EAP, and ESNACIFOR in the dissemination of the CTTA methodology.

- Offer MNR authorities support for activities carried out by the ACD, both at the national and regional levels.

D. CTTA EXPANSION

CTTA expansion to other MNR regions is well advanced. In fact the project is now working

not only in Comayagua but also in the Litoral Atlántico, Olanchito, Olancho, San Pedro Sula, and Danli. Conversations are underway in order to establish other ACD regional offices in Santa Barbara, Santa Rosa de Copán, and La Esperanza. In spite of this tremendous progress, a concern remains about the support that some MNR regional directors will give to the ACD.

RECOMMENDATIONS:

- implement the MNR director general of agriculture's decision to establish ACD regional communication offices in those regions where they do not now exist.

- MNR regional directors should support the establishment of ACD offices in their respective regions, following the specific recommendations prepared by ACD in this regard.

E. MNR AGRICULTURAL RESEARCH

Agricultural research activities in Honduras have been carried out for more than 35 years. In spite of the progress made in the past, an important concern is still the lack of appropriate technologies for small farmers living in hillside areas. These small farmers produce more than 65 percent of the domestic food. There is the possibility of improving their productivity, and at the same time reducing the deterioration of the natural resources. But farmers need to know about the technologies available.

RECOMMENDATIONS:

- Reorient MNR current agricultural research activities toward the investigation of hillside farmers' needs.

- Deemphasize the use of chemical fertilizers and pesticides in trials and determine which new low-cost technologies, such as planting systems and cultural practices, are more appropriate for particular settings and small farmers' socio-economic conditions.

- Emphasize the use of local resources in agricultural research activities. For instance, rather than compare dosages of chemical fertilizers, study the effect of different organic fertilizers.

- Increase farmers' participation in agricultural research activities. This process has been successfully initiated in Comayagua and should be gradually expanded to other MNR regions.

- Finally, strengthen the agricultural research training activities within MNR. Such training should take into consideration the MNR unified methodology, the use of available local resources, and the sustainability of natural resources.

F. MNR EXTENSION ACTIVITIES

Despite substantial improvement in the MNR extension service with the institutionalization of the unified methodology, some extensionists may show less "activism" in the future. At the outset of CTTA activities in Honduras, many extensionists were dedicated to conducting a specific number of field days, method demonstrations, farm visits, and so on. The specific objectives and goals that they wanted to reach were not clarified. In other words, extentionists were more worried about the number of activities to carry out than about the results obtained through them. In part this was due to the pressure imposed by the MNR Planning Unit and the lack of a clear understanding about the MNR extensionist's role. It is very important to ensure that this situation is not repeated in the future.

RECOMMENDATIONS:

- Maintain a permanent, well qualified team of national extensionists and communicators in charge of supervising use of the MNR unified methodology at the national, regional, and local levels.

- Strengthen internal training activities in extensionists for the preparation, implementation, and evaluation of technology transfer projects.

- Conduct annual seminars or workshops to evaluate extensionists' accomplishments and experiences in the field.

V. CONCLUSIONS

The CTTA Project has developed and demonstrated a more effective agricultural technology transfer approach, which

- is highly sensitive to farmers' felt needs,

- integrates extensionists, researchers, farmers, and communicators,

- provides for a high degree of farmer participation,

- utilizes existing personnel and resources in an orderly and cost-efficient manner, and

- inspires a high level of motivation and enthusiasm among all participants.

Institutionalization of the CTTA approach in Honduras is well advanced and current MNR authorities are well aware of its importance.

Monthly reports in the CTTA file document the steps followed in the implementation of the CTTA approach in Honduras, as well as other CTTA activities in the country, with emphasis on the gradual advances obtained throughout the project on the process of improving the quality and coverage of the MNR's extension service in Comayagua, and more recently in other MNR regions, where the CTTA has expanded.

Obviously, there are still some concerns regarding the future of some CTTA activities in the country. These concerns will require special attention by MNR authorities. Hopefully, those concerns will be addressed.

Appendix I
Scope of Work

SCOPE OF WORK
MILTON GERARDO MUNOZ M.

The specific duties and responsibilities as CTTA Field Director in Honduras included, but were not limited to the following:

TECHNICAL RESPONSIBILITIES:

- Provide leadership in implementation of the Comayagua pilot project in accordance with the approved implementation plan and letter of understanding.

- Prepare in collaboration with the Honduran CTTA Project Director and Comayagua CTTA Project Coordinator, detailed annual integrated action plans, updated semi-annually.

- Coordinate, in collaboration with the Honduran CTTA Project Director, and assist in the selection, drafting and pretesting of agricultural technology messages and materials.

- Coordinate, in collaboration with the Honduran CTTA Project Director and/or his designee, and assist in the design, conduct and analysis of initial and follow-on investigations.

- Provide leadership, in collaboration with the Honduran CTTA Project Director, and assist in the introduction, use, refinement, and documentation of CTTA multi-channel communication strategies and methods, combining behavioral analysis, social marketing, agricultural extension, and development communication.

- Assist in organization of a media production system and development of an educational programming system for communication interventions.

- Provide leadership, in collaboration with the Honduran CTTA Project Director, in initiating and continuing feedback and other formative methods for the pilot site interventions, coordinating with the resident evaluation specialist on both these and summative evaluation activities.

- Plan, in collaboration with Honduran counterparts, and participate in-service training of collaborating institution staff at pilot project and national levels.

- Assist in institutionalization and extension into other regions of the communication strategies and methods developed in the Comayagua pilot project.

- Coordinate on-site implementation activities with in-country collaborating agencies and personnel, including the Ministry of Natural Resources and the Honduras Agricultural Research Foundation (FHIA), and USAID/Honduras.

- Communicate regularly with the CTTA Project Director and Associate Director, and with USAID/Honduras as needed to keep them fully informed of project activities and progress, and anticipated issues or problems.

MANAGEMENT RESPONSIBILITIES:

- Maintain a project imprest fund for disbursements, including accounting of all in-country expenditures incurred under the project.

- Schedule, make support arrangements for, and coordinate in-country activities of all Contract-provided short term consultants.

- Select, employ, and supervise local administrative staff and other staff provided under the Contract and approved by the AED CTTA Project Director.

- Prepare and submit regular reports as required under the Contract and/or as directed by the AED CTTA Project Director.

Appendix II
Technical Assistance and Trip Reports

Technical Assistance Schedule

Consultants/Authors	Task	Date
1985		
Howard Ray Susan Saunders Dennis Foote Kerry Brynes Gerald McCart	Project Start up (Pilot Site Selection, Letter of Understanding & Implementation Plan)	10-25-85
1986		
Howard Ray Edwin Tout	AED/CTTA Management	03-14-86
Edwin Tout William Ward	MNR Communications Unit	08-16-86
Elizabeth Booth	Developmental Investigation	09-26-86
Valerie Barzetti	AED/CTTA Management	10-15-86
John Elder	Developmental Investigation	11-01-86
Douglas Porter	Behaviorial Analysis	11-08-86
Walter Correa	MNR Printing & Communications Unit	11-28-86
1987		
Elizabeth Booth	AED/CTTA Management	01-30-87
H. James Miller	Design Communication Facilities	02-12-87
Edwin Tout	AED/CTTA Management	02-14-87
Howard Ray	AED/CTTA Management	04-02-87
Dennis Foote Shakir Hussein	Develop & Write Summative Evaluation Plan	07-04-87
Howard Ray Gail McClure	AED Management	12-05-87
1988		
Howard Ray	Institutionalization of Project Activities	07-17-88
1989		
Gail McClure	AED/CTTA Management	05-04-89
Jorge Sarmiento	Audio-visual Graphics	04-15-89
Amalia Alberti	CTTA Extension Workers	12-15-89

Technical Assistance Schedule

Consultants/Authors	Task	Date
1990		
Michael Martin	Impact of CTTA Extension	02-14-90
Bernardo Pena	Assistant to Field Director	05-31-90
Orlando Hernández	Evaluation Training	05-28-90
Barbara Roszel	Project Site Close-out	08-24-90

Trip Reports

1. *CTTA Team trip report for project start up activities (site for pilot project, Letter of Understanding, Project Implementation Plan)*, Howard E. Ray, Susan Saunders, Dennis Foote, Kerry Byrnes and Gerald McCart, October 1 - 25, 1985.

2. *Individual trip report on team visit*, Kerry J. Byrnes, September 27 - October 30, 1985.

3. *Individual trip report on team visit*, Gerald D. McCart, September 30 - October 26, 1985.

4. *AED/CTTA management trip report*, H. Ray, E. Tout, March 10 - 14, 1986.

5. *Team visit on MNR Communications Unit*, Edwin Tout and William Ward, August 21 - 28, 1986.

6. *Trip report on developmental investigation, development of communications strategies and trainer in CTTA International Workshop*, Elizabeth Mills Booth, September 4 - 26, 1986.

7. *AED/CTTA management trip report*, Valerie Barzetti, September 3 - October 15, 1986, in Spanish.

8. *Assisted in design of developmental investigation and communication strategy for Comayagua pilot project*, Dr. John Elder, 24 October - 1 November, 1986, in English and Spanish.

9. *A Proposal for the Analsis and Improvement of Reinforcement in the Position of Agricultural Extensionist*, Douglas Porter, 2 - 8 November, 1986, in English and Spanish.

10. *Evaluation of needs and capabilities of MNR printing facilities*, Walter Correa C., November 16 - 28, 1986.

11. *AED/CTTA management trip report*, Elizabeth Booth, January 18 - 30, 1987, in Spanish.

12. *Design of Space and Facilities for Communication Offices with MNR*, H. James Miller, 1 - 12 February, 1987.

13. *AED/CTTA management trip report*, Edwin A. Tout, February 8 - 14, 1987.

14. *AED/CTTA management trip report*, Howard E. Ray, March 29 - April 2, 1987.

15. *Trip report on developing and writing summative evaluation plan*, Dennis Foote and Shakir Hussein, May 20 - July 4, 1987.

16. *AED/CTTA management trip report*, Howard E. Ray and Gail McClure, November 29 - December 5, 1987.

17. *Plan for institutionalization of CTTA Project activities*, Howard E. Ray, July 10 - 17, 1988.

18. *AED/CTTA management trip report*, Gail McClure, April 25 - May 4, 1989.

19. *Develop audio-visual graphics unit for MNR*, Jorge Sarmiento, February 28, 1989 - April 15, 1989.

20. *Attitudinal Change Among Extension Workers in the CTTA Project*, Amalia Alberti, 29 November 1989 - 4 January 1990.

21. *The Impact of CTTA Extension on Yield and Income in the Comayagua Region of Honduras*, Michael Martin, January 15 to February 14, 1990.

22. *Final report on consultancy as assistant to Field Director*, Bernardo Peña, September 15, 1989 to May 31, 1990, in Spanish.

23. *Training on DCA staff in evaluation approaches*, Orlando Hernández, 20-26 May 1990.

24. *Project site close-out report*, Barbara Roszel, 19-23 August 1990.

Appendix III
Equipment Procurement

No.	DESCRIPCION	SERIE No.	INV.No.	VALOR $. DOLARES.
1.	Xerox Photocopier 1025 (fotocopiadora)	K02-320811	AED-001	1595.00
2.	IBM Wheel Writer III Typewriter (Máquina de escribir eléctrica)	0711905	AED-002	
3.	IBM Wheel Writer III Typewriter (Máquina de escribir eléctrica)	0711947	AED-003	
4.	Faber Castle eléctric.Stapler (Engrapadora Eléctrica)	47277	AED-004	
5.	Faber Castle eléctric.Stapler (Engrapadora Eléctrica)	47303	AED-005	
6.	DA-LITE Screen (Pantalla de Proyección)	0062254	AED-006	
7.	Xerox 1020 Photocopier (fotocopiadora)	043-332-790	AED-007	1,000.00
8.	Numark Stereo Audio Mixer (Mescladora de sonido)	CA-322193	AED-008	89.00
9.	Electro voice Microphone (Micrófono)	635A-9006	AED-009	67.20
		635A-9006	AED-010	67.20
10.	Cassette Duplicator (Duplicador de 'cassette)	903440	AED-011	710.00
11.	IBM Personal System (Pantalla computadora)	BJM9UBMM-1232	AED-012	220.00
12.	Computer Model M (Computadora)	2407539	AED-013	3,125.00
13.	Disk-Driver (Unidades de Diskett)	72-8117556	AED-014	
14.	Printer Epson (Impresora)	P0050961	AED-015	650.00
15.	Smart Modem 1200	A40300153073	AED-016	515.00
16.	Power Director (Fuente de Poder)	030478375	AED-017	
17.	Betamax Mod SL/HF650	AK896ASL HF450	AED-018	460.00
18.	Teac Stereo Deck (Casetera)	30104-873	AED-019	600.00
19.	Teac Stereo Deck (Casetera)	30176-873	AED-020	600.00
20.	Technics Turntable Model. SL-1200MK2-A Tornamesa	AB7708F318	AED-021	338.00
21.	Technic Turntable Model. SL-1200MK2-A (Tornamesa)	AB7708F317	AED-022	338.00

Vienen....

N.	D E S C R I P C I O N	SERIE N.	Inv.N.	Valor $
22.	Teac Magnetophone Stereo X300	550177-873	AED-023	495.00
23.	Leroy Controlled Lettering System	-0-	AED-024	210.32
24.	" " "	-0-	AED-025	210.32
25.	" " "	-0-	AED-026	210.32
26.	" " "	-0-	AED-027	210.32
27.	JVC RX750VBK (Receiver)	11203606	AED-028	
28.	AKG EARPHONE SET (Audifonos)		AED-029	75.00
29.	" " " "		AED-030	75.00
30.	3M Over head proyector 429-Model 213 Proyector	697600	AED-031	575.00
31.	3M Over head Proyector 429 Model 213 (proyector)	795256	AED-032	575.00
32.	Kroy Lettering System (tituladora)	84141	AED-033	862.75
33.	Microphone floor stands Micrófono de pie	-0-	AED-034 AED-036	40.00 40.00
34.	Microphone floor stands (Microfono de pie)	-0-	AED-035	40.00
35.	Teac Stereo Tape Deck X-300 (casetera)	550125-873	AED-038	495.00
36.	JVC RX740VBX (Receiver)	11203676	AED-039	
37.	Premier Trimmer		AED-040	195.00
38.	Premier Trimmer		AED-041	195.00
39.	Kenwood LSK-302W (dos)	-0-	AED-042	210.00
40.	Ken Wood LSK-302W (dos)	-0-	AED-043	210.00

vienen....

N.	D E S C R I P C I O N	SERIE No.	INV. No.	VALOR $. DOLARES
41	AB-Dick Stencil Maker (Quemadora de stencil)	-0-	AED-044	$.1,754.33
42	Kawasho televisión set	-0-	AED-0045	385.00
43	Super Betamovie sony modelo BMC-660	211638	AED-0046	1,450.00
44	Slede Duplicator Adpter-Pentax (Duplicador de slide para adaptar cámaras de fotografía)		AED-0047	
45	Slides Duplicator D/L 1561 (Duplicador de slides)		AED-048	133.94
46	Pentax photographic camara K1000 SE.	8155577	AED-049	250.95
47	Pentax photographic camara	8156336	AED-050	250.95
48	Filtros para duplicadora (14 Unidades)		AED-051	
49	Zykkor filters 49 MM	?	AED-052	
50	Pentax photographic 1:2 50 MM	?	AED-053	
51	Pentax photogrphic 1:2 50 MM	?	AED-054	
52	Cargador de Baterías marca sony Serie N.056918		AED-055	
53	Baterías marca sony Modl.NP-119 6v. 1000mAh		AED-056 AED-057	

Appendix IV
Publications and Reports

Didactic Materials

Preparación de Suelos para Siembra de Frijol en Ladera, Secretaría de Recursos Naturales, Departamento de Comunicación Agropecuria, Proyecto CTTA, Comayagua, 1987.

Variedades de Frijol Recomendadas para la Zona de San Jerónimo, Secretaría de Recursos Naturales, Departamento de Comunicación Agropecuria, Proyecto CTTA, Comayagua, 1987.

Variedades de Frijol Recomendadas para la Zona de San Luis, Secretaría de Recursos Naturales, Departamento de Comunicación Agropecuria, Proyecto CTTA, Comayagua, 1987.

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Informe Final de la Consultoría sobre Diseño y Producción de Audiovisuales, Jorge E. Sarmiento V., February 1989, in Spanish.

A Case Study about Small Farmer's Participation in CTTA - Honduras Project, Ramón W. Nuila, 1989.

Recomendaciones, Prácticas y Fuentes de Consejos Asociadas con el Cultivo de Arroz, Agencias de San Jerónimo y San Luis, O. Hernández, January 1989, in Spanish.

Secretaría de Recursos Naturales Departamento de Comunicación Agropecuaria, Proyecto de CTTA, Resumen Acciones, DCA-CTTA, 1986-1989, 1990, in Spanish.

Marginal and Women Farmers and Extension Services in the Comayagua Region of Honduras, Amalia M. Alberti, March 26, 1990, Honduras.

CTTA Honduras Pilot Project Institutionalization Study, Orlando Hernández Alcerro, June 1989, in English and Spanish.

Additudinal Change Among Extension Workers in the Communication for Technology Transfer in Agriculture Project, Amalia M. Alberti, February 12, 1990, Honduras.

Increases in Yields and Farmer Income as a Result of CTTA Extension Work in Honduras, Michael Martin, January 15-February 14, 1990, Comayagua, Honduras.

Posters

Contra el Hambre y la Desnutrición...Aumentemos la Producción. Sembremos Granos Básicos.

Por qué Sembrar Arboles? Dan Beneficios para Todos.

El Bosque es Vida...Cuidar el Bosque es Amar la Patria.

La Brucelosis Bovina...Prevéngala.

Cada Día Somos Más...Cada Día Necesitamos Más Alimentos. Produzcamos Granos Básicos. Honduras lo Necesita.

Calendario de Producción de Granos Básicos en Honduras.

Facilidad, Rapidez y Limpieza con la Desgranadora Manual.

Estamos Destruyendo Nuestros Recursos Naturales...Protejámoslos.

Ahorra Tiempo, Produce Más.

XXXV Reunion Anual.

Apoyemos la ENA.

IX Asamblea General Ordinaria.

36 Aniversario ENA.

XVII Convención Internacional AGEAP.

Flyer - *Escuche el Programa Amanecer Agropecuario*. Mensajes Agropecuarios de Interés para las Familias del Campo, Cada Sábado por "Radio Nacional de Honduras", de 5:30 a 6:00 de la Mañana.

Flyer - *Escuche el Programa Radial*, "la Milpa".

Audiovisuals

La Metodología Unificada para la Entrega de Servicios, 120 slides, 17 minutes.

CTTA: Comunicación Efectiva para la Transferencia de Tecnología Agropecuaria, 80 slides, 14 minutes.

Los Proyectos de Transferencia de Tecnología Agropecuaria, 80 slides, 11 minutes.

El Gusano Cogollero, 45 slides, 8 minutes.

AHDEJUMUR: Asociación Hondureña de la Mujer y el Joven Rural, 80 visuals, 12 minutes.

Appendix V
Training Activities Summary

TRAINING, WORKSHOPS, PRESENTATIONS: C.T.T.A. PROJECT - HONDURAS - 1986-90

DATE	TYPE OF EVENT AND NUMBER	PLACE	NUMBER AND STATUS OF PARTICIPANTS	ISSUES DEVELOPED IN THE PRESENTATION
12/86	Workshop-1	Tegucigalpa	17 Researchers	Two-day workshop in field research techniques and data compilation and analysis.
01/87	Training-1	Tegucigalpa	18 DCA Staff	Two-week intensive course in radio production involving promotion materials, formats, and use of procedural manuals.
02/87	Conference-1	Tegucigalpa	25 DCA Staff	Introduction to the topic: Programming by Projects.
03/87	Internal Training-1	Tegucigalpa	32 DCA Staff	Internal weekly training initiated: Analysis of the Communication Process.
04/87	Internal Training-4	Tegucigalpa	31 DCA Staff	On-going weekly sessions included internal communications, technical guide in corn, basic principles of writing, use of a/v materials.
05/87	Media Training-3	Tegucigalpa	17 DCA Staff	Training activities and follow-up support in specific projects related to celebration of "Natural Resources Week."
	Internal Training-2	Tegucigalpa	10 DCA Staff	Training for CEDIA personnel regarding work through the projects.

TRAINING, WORKSHOPS, PRESENTATIONS: C.T.T.A. PROJECT - HONDURAS - 1986-90

DATE	TYPE OF EVENT AND NUMBER	PLACE	NUMBER AND STATUS OF PARTICIPANTS	ISSUES DEVELOPED IN THE PRESENTATION
06/87	Internal Training-2	Tegucigalpa	23 DCA Staff	Weekly training brings increased output; results presented to MNR.
07/87	Internal Training-4	Tegucigalpa	32 DCA Staff	On-going weekly training.
08/87	Internal Training-4	Tegucigalpa	34 DCA Staff	On-going weekly training.
09/87	Internal Training-4	Tegucigalpa	33 DCA Staff	On-going weekly training.
10/87	Internal Training-4	Tegucigalpa	34 DCA Staff	On-going weekly training.
11/87	Seminar-Workshop-2	Las Lajas Siguatepeque	39 MNR Extensionists	Building on DCA training, extensionists learned to draft project proposal and use mass media to improve contact with farmers.
12/87	Seminar-Workshop-4	La Paz La Villa de San Antonio Comayagua Ajuterique	25 MNR Extensionists	Program similar to 11/87 seminar; all MNR extensionists from Comayagua region now trained by CTTA.
01/88	Internal Training-2	Tegucigalpa	10 DCA Staff	On-going weekly training.
02/88	Internal Training-2	Tegucigalpa	22 DCA Staff	On-going weekly training.
03/88	Internal Training-2	Tegucigalpa	1 DCA Staff	On-going weekly training.

TRAINING, WORKSHOPS, PRESENTATIONS: C.T.T.A. PROJECT - HONDURAS - 1986-90

DATE	TYPE OF EVENT AND NUMBER	PLACE	NUMBER AND STATUS OF PARTICIPANTS	ISSUES DEVELOPED IN THE PRESENTATION
04/88	Orientation-6	Comayagua	13 New CTTA Staff	CTTA "new arrivals" briefed and trained in duties and methods.
	Internal Training-4	Tegucigalpa	25 DCA Staff	On-going weekly training.
05/88	Mass Media Train.-10	Tegucigalpa	15 MNR Staff	Two-week communications training for Danli Region DCA, focusing on CTTA method of integrating mass media, radio, and graphics in support of technology transfer.
	Internal Training-1	Tegucigalpa	18 DCA Staff	On-going weekly training.
06/88	Internal Training-2	Tegucigalpa	30 DCA Staff	On-going weekly training.
07/88	Mass Media Train.-10	Comayagua	15 DCA Staff	Further training in communications for Danli Region personnel.
	Seminar-Workshop-3	Olanchito	30 Extensionists & Researchers	CTTA joined MNR officials to train MNR regional field workers in integrating various types of communications technology with MNR services.
	Internal Training-1	Tegucigalpa	35 DCA Staff	On-going weekly training.
08/88	Internal Training-1	Tegucigalpa	16 DCA Staff	On-going weekly training.

TRAINING, WORKSHOPS, PRESENTATIONS: C.T.T.A. PROJECT - HONDURAS - 1986-90

DATE	TYPE OF EVENT AND NUMBER	PLACE	NUMBER AND STATUS OF PARTICIPANTS	ISSUES DEVELOPED IN THE PRESENTATION
09/88	CTTA Method Train.-1	Comayagua	12 Veterinarians	CTTA oriented veterinarians from Olanchito, Santa Rosa, and La Esperanza in use of CTTA methods w/in PROFOGASA Project.
	Internal Training-1	Tegucigalpa	16 DCA Staff	On-going weekly training.
10/88	Conference-1	El Zamorano	24 Extensionists	CTTA presented panel "Communication and Transfer of Agricultural Technology" as part of ICCA Course VI in Central American Coffee Production.
	Internal Training-1	Tegucigalpa	45 DCA Staff	On-going weekly training.
11/88	Seminar-Workshop-30	Olanchito	30 Extensionists & Researchers	Second seminar on integrating research, extension, and communication methods in technology transfer projects.
	Internal Training-1	Tegucigalpa	2 DCA Staff	On-going weekly training.
12/88	Internal Training-1	Tegucigalpa	25 DCA Staff	On-going weekly training.
01/89	Research-3	Tegucigalpa	3 Students	Advice on MA thesis.
	Internal Training-1	Tegucigalpa	5 DCA Staff	On-going weekly training.

TRAINING, WORKSHOPS, PRESENTATIONS: C.T.T.A. PROJECT - HONDURAS - 1986-90

DATE	TYPE OF EVENT AND NUMBER	PLACE	NUMBER AND STATUS OF PARTICIPANTS	ISSUES DEVELOPED IN THE PRESENTATION
01/89	Conference-1	Danli	17 MNR Regional Directors	Presentation of MNR unified methodology.
02/89	Research-Education-1	Tegucigalpa Comayagua El Zamorano	9 Extension Students	Agreement established between CTTA and Escuela Agricola Panamericana (EAP) to train extension students in CTTA methods and gain practical experience through EAP Rural Development Project.
	Internal Training-1	Tegucigalpa	10 DCA Staff	On-going weekly training with special emphasis on applied statistics in communication research.
03/89	Research-Education-1	Tegucigalpa	ENA Students	Agreement planned to involve CTTA in training extension students from National School of Agriculture (ENA).
	Internal Training-20	Tegucigalpa	6 DCA Staff	Special A/V training.
	Seminar-Workshop-1	Comayagua	8 New CTTA Staff	CTTA staff orientation in use of MNR unified methodology (integrated research, extension, communication).

TRAINING, WORKSHOPS, PRESENTATIONS: C.T.T.A. PROJECT - HONDURAS - 1986-90

DATE	TYPE OF EVENT AND NUMBER	PLACE	NUMBER AND STATUS OF PARTICIPANTS	ISSUES DEVELOPED IN THE PRESENTATION
03/89	Seminar-Workshop-2	Comayagua	45 PROFOGASA	Training in use of communication in livestock technology transfer projects.
	Seminar-Workshop-1	Olanchito	20 PROFOGASA	Same as above.
	Seminar-Workshop-1	Ajuterique	7 Extensionists & Researchers	Training in developmental investigation.
	Research-Education-1	El Zamorano	9 EAP Students	CTTA-sponsored seminar in connection with EAP Rural Development Program.
04/89	Seminar-Workshop-1	Comayagua	22 MNR Staff	Training MNR extentionists in use of various forms of communications in technology transfer projects
	Seminar-Workshop-1	Tegucigalpa	22 MNR Staff	Similar to above format with use of photography.
	Seminar-Workshop-1	San Luis	6 Extensionists	Training in selection of communication strategies for 1989 technology transfer projects.
05/89	Seminar-Workshop-1	Catacamas	46 Extensionists & Researchers	Regarding the MNR unified methodology.

TRAINING, WORKSHOPS, PRESENTATIONS: C.T.T.A. PROJECT - HONDURAS - 1986-90

DATE	TYPE OF EVENT AND NUMBER	PLACE	NUMBER AND STATUS OF PARTICIPANTS	ISSUES DEVELOPED IN THE PRESENTATION
05/89	Seminar-Workshop-1	Santa Rosa de Copan	10 Agricultural Researchers & 65 Extensionists	Regarding the MNR unified methodology.
	Seminar-Workshop-1	Choluteca	32 Extensionists & Researchers	Regarding the MNR unified methodology.
	Meetings-2	San Luis and Lajas	14 Farmers	Rural Correspondents Network.
06/89	Seminar-1	Tegucigalpa	25 Livestock Extensionists	Application of the CTTA approach.
	Seminar-1	Tegucigalpa	10 Extensionists of PRORIEGO	Pretest of graphic printed materials.
	Seminar-1	Comayagua	24 Extensionists	Revision of 1989 technology transfer projects.
	Internal Train-2	Tegucigalpa	10 DCA Staff	On-going weekly training in statistics.
07/89	Course-1	Comayagua	5 DCA Regional Staff	CTTA methodology.
	Seminar-Workshop-1	Comayagua	10 Livestock Extensionists	How to conduct the developmental investigation.

TRAINING, WORKSHOPS, PRESENTATIONS: C.T.T.A. PROJECT - HONDURAS - 1986-90

DATE	TYPE OF EVENT AND NUMBER	PLACE	NUMBER AND STATUS OF PARTICIPANTS	ISSUES DEVELOPED IN THE PRESENTATION
08/89	Seminar-1	Siguatepeque	14 Researchers & Extensionists	Transfer of technology project methodology.
08/89	Internal Train-3	Tegucigalpa	10 DCA Staff	On-going weekly training in statistics.
	Seminar-Workshop-1	Comayagua	5 DCA Staff	Adaptation of technical contents.
09/89	Internal Train-1	Comayagua	13 DCA Regional Staff	CTTA Methodology & the MNR unified methodology.
	Seminar-Workshop-1	San Juan Pueblo	18 Extensionists & Researchers	CTTA methodology.
	Seminar-Workshop-1	Comayagua	15 Extensionists & Researchers	Basic principles of photography.
	Lecture-2	Zamorano	8 EAP's Extension Students	MNR unified methodology.
10/89	Internal Train-3	Tegucigalpa	10 DCA members	On-going weekly training in statistics.
11/89	Internal Train-2	Tegucigalpa	18 DCA Staff	Technical writing.
	Seminar-Workshop-1	Comayagua	14 Rural Correspondents	How to collect data at the field level; interviews.

TRAINING, WORKSHOPS, PRESENTATIONS: C.T.T.A. PROJECT - HONDURAS - 1986-90

DATE	TYPE OF EVENT AND NUMBER	PLACE	NUMBER AND STATUS OF PARTICIPANTS	ISSUES DEVELOPED IN THE PRESENTATION
12/89	Lecture-2	Zamorano	8 EAP's Extension Students	MNR unified methodology.
	Internal Train-1	Tegucigalpa	14 DCA Staff	On-going weekly training in statistics.
01/90	Internal Train-1	Comayagua	15 DCA Staff	Communication planning.
02/90	Internal Train-1	Tegucigalpa	10 DCA Staff	On-going weekly in statistics.
03/90	Internal Train-2	Tegucigalpa	4 DCA Staff	Audiovisual pretest and group dynamic.
04/90	Internal Train-1	Tegucigalpa	15 DCA Staff	Visual aids.
	Internal Train-1	Tegucigalpa	5 DCA Staff	Computing.
	Internal Train-1	Tegucigalpa	8 DCA Secretaries	Technical writing.
	Internal Train-2	Tegucigalpa	8 DCA Graphic Artists & Printing Machine Operators	Color separation, maintenance of printing machines.
05/90	Internal Train-1	Tegucigalpa	18 DCA Staff	Speech and group dynamics.
	Internal Train-1	Tegucigalpa	10 DCA Staff	Evaluation techniques.

TRAINING, WORKSHOPS, PRESENTATIONS: C.T.T.A. PROJECT - HONDURAS - 1986-90

DATE	TYPE OF EVENT AND NUMBER	PLACE	NUMBER AND STATUS OF PARTICIPANTS	ISSUES DEVELOPED IN THE PRESENTATION
06/90	Meetings-2	Comayagua	14 Rural Correspondents	Monitoring activities.
	Seminar-Workshop-1	Comayagua	20 Extensionists	Unified methodology.
	Seminar-Workshop-1	Comayagua	25 Livestock Extensionists	Transfer of project technology.
07/90	Lecture-1	Comayagua	25 MNR Regional Directors & Extensionists	Generation and transfer of technology.
08/90	Seminar-Workshop-1	Sta. Rosa de Copan	28 Extensionists & Researchers	MNR unified methodology.

Appendix VI
Budget Summary

Communication for Technology Transfer in Agriculture (CTTA) Project
Contract No. DPE-5826-C-00-5054-00

Summary of Expenditures for Technical Services to Honduras
From September 1986 to May 31 1990

Category	Central	Mission	Total
1. Salaries	189,489	98,789	288,278
2. Benefits	42,970	27,096	70,066
3. Consultant Fees	16,351	19,345	35,696
4. Travel & Transportation	108,590	27,084	135,674
5. Other Direct Costs	23,906	37,970	61,876
6. Indirect Costs	106,713	60,227	166,940
7. Allowances	36,347	18,621	54,968
8. Equipment & Shipment	65,150	0	65,150
9. Subcontract	329,341	0	329,341
10. Subcontract G&A	6,350	0	6,350
GRAND TOTAL	925,207	289,132	1,214,339

* Estimated Final Accounting