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**SMALL FARMER TITLING
TECHNICAL ASSISTANCE PROJECT
HONDURAS**

FIFTH SEMI-ANNUAL REPORT

OCTOBER 1986

(Period April 1st. - September 30, 1986)

Contract No. AID 522-1073-C-00-4089-00
Project No. 522-0173

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CLAPP AND MAYNE, INC.

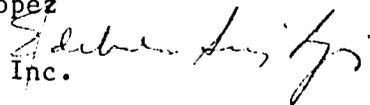
CONSULTANTS TO MANAGEMENT

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April 29, 1987

M E M O R A N D U M

TO : Mr. James E. Corley
Contracting Officer
USAID/Honduras

FROM : Edibaldo Silva Lopez
President
Clapp and Mayne, Inc. 

SUBJECT : Fifth Semi-Annual Report
Honduras Small Farmer Titling
Technical Assistance Project
Contract No. AID 522-0173-C-00-4089-00

In accordance with Clause 17(a) of the General Provisions, we are pleased to submit for your consideration three copies of the Fifth Semi-Annual report on the subject contract.

Also enclosed is the administrative report concerning expenditures and personnel employed under the contract.

Enclosures

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PART I

STATUS OF THE WORK
UNDER THE CONTRACT

I. INTRODUCTION

This report complies with the provisions of Article II, Section B of the Contract No. AID 522-0173-C-00-4089-00 and General Provision No. 17, "Reports", and constitutes the fifth semiannual report of the Small Farmer Titling Technical Assistance Project, covering the period of April 1, 1986 - September 30, 1986.

On March 12, 1984 Clapp and Mayne, Inc. and USAID/Honduras signed the Small Farmer Titling Technical Assistance Project contract (No. AID 522-0173-C-00-4089-00. This contract provides for 48 person/months technical assistance to the National Agrarian Institute (INA) and the Executive Direction of Cadastre (DEC) in the fields of cartography and EDP.

In December 1984, the contract was ammended to increase the level of effort by two additional person/months to provide one O&M Specialist to carry out an administrative audit of the Executive Direction of Cadastre.

On July 1986 the contract was extended to provide 26 additional person/months of services in the fields of Cartography and Electronic data processing.

The goal of this project is to increase food production employment, and incomes in rural Honduras by expanding the benefits of private property ownership to small farmers settled on government owned lands.

The purpose of the project is to establish a coordinated and functioning system for the titling of rural

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lands in Honduras. By increasing the administrative capacity of the National Agrarian Institute (INA) to issue up to 50 titles per day, through an interinstitutional approach to the titling process, the project will issue fee simple ("dominio pleno") titles to occupants of national lands in six departments of Honduras and begin in a seventh department within the next five years, following an established priority order, starting with the Department of Santa Barbara.

On August 30, 1982, the Republic of Honduras (GOH) and the United States of America, acting through the Agency for International development (USAID), signed the project agreement for this project, setting out the understanding of the previous mentioned parties with respect to the undertakings by the GOH and with respect to the financing of the project by the parties.

To assist the GOH to meet the cost of carrying out the project, USAID, pursuant to the Foreign Assistance Act of 1961, as amended, agreed to grant the GOH, under the terms of said agreement, an initial amount not to exceed one million dollars (\$1,000,000) and to lend the GOH, under the terms of the same agreement, an initial amount not to exceed ten million dollars (\$10,000,000).

The project consists of three (3) main activities; these are:

1. interinstitutional promotional and publicity campaigns in the target areas;
2. delineation of rural properties and related costs in seven departments; and

3. the improvement and expansion of INA's Department of Land Transfer and Adjudication and its Agrarian Debt Control Office.

Specifically, the technical assistance contract signed by Clapp and Mayne, Inc; is aimed to the delineation of rural properties and mapping activities. This activity is the backbone of the large titling effort, which consists of the identification of areas by their legal status and the delineation of properties to be titled.

Delineation activity is being carried out by the Executive Direction of Cadastre (DEC) through special agreement among INA and DEC.

Working from aerial photography and orthophoto maps, DEC's delineation teams identify existing property boundaries. The delineation, accordingly programmed into DEC's existing computer facility, is processed for producing standardized property maps (scale 1:10,00) of the entire area. These maps, along with individual ground plots and their identification of the owner/occupant and land use information are submitted to INA.

At the same time that properties are being delineated, an investigation into the legal status of the land is completed. Title searches are completed in Tegucigalpa prior to work in the field. The results of such searches are checked and verified at the municipality level by examining the records of the municipal property registers.

Within each municipality, two types of property delineation take place. After the title searches are completed, the outside boundaries of all properties held in "dominio pleno" are identified. By exclusion, all rural land within the municipality that is not titled in "dominio pleno" is the property of the Government. Subsequently, a map of each municipality identifying all lands by their legal status (public or private lands) is produced.

Except for the identification of the outside boundaries of "sitios privados" (private owned lands), the project does not work with lands held in "dominio pleno".

Once public lands are identified, as described above, delineation teams begin the identification and delineation of individual farm properties located on public lands. As properties are identified and delineated, a "ficha catastral" (cadastral card) is completed for each delineated property. In addition to the description of the location and boundaries of the property, this registry card identifies the occupant, his claim to ownership, and a detailed description of the use to which the land is being put. The information on the card is subsequently computerized and a cadastral number is assigned.

In the office, DEC calculates the area of each property and prepares a list of the properties with area and land use information.

All these materials produced by DEC are submitted to INA for the beginning of the titling process.

As the delineation responsibility falls under DEC, as stated out in the Project Agreement, both INA and DEC signed an Interinstitutional Technical Cooperation Agreement to carry out the Project. This agreement was signed on January 14, 1983 and will expire on August 29, 1987. This Interinstitutional Agreement sets out the understanding of both parties with respect to the undertakings of each institution.

As a result of the Interinstitutional Agreement, both institutions signed Project Agreement No. 1 for financing delineation activities for the Department of Santa Barbara; said agreement was signed on April 27, 1983.

The second agreement for delineating activities in the Department of Comayagua was signed on April 24, 1984. Third Project Agreement for delineation activities in the Department of Copan was signed on January 29, 1985 and the fourth, for the Department of Cortes, was signed on August 23, 1985.

II. STATUS OF THE WORK UNDER CONTRACT

A. Consultants Mobilization

The first specialist, the Cartographer/Project Director Eng. Miguel A. Nunez Delgado, arrived at the project on March 19, 1984 for a two years tour. Mr. Ibrahim Medina, Computer Analyst, arrived on July 23, 1984 and Mr. Jorge Vega Acosta, O&M Specialist, arrived on January 28 and departed on March 27, 1985 after completion of his assignment.

B. Activities Carried Out by the Cartographer

1. During the period, 66 meetings were attended to discuss technical and administrative matters dealing with the Small Farmer Titling Project and other DEC's related matters. These meetings were held with AID, INA and DEC's officials and supervisory personnel. Among the matters considered in these meetings were:

- a) Review of overall progress of projects problems.
- b) Development of a delineation course
- c) With CONSPLANE, Urbanismo, BANMA, INA and Asesoría Técnica Municipal to discuss the action Plan for delimiting urban boundaries.
- d) Discussion on graphics showing the project history to develop recommendations for another approach for financing the project.
- e) Discussion on low field delineation production rate.
- f) Rescheduling of map delivery dates to INA in regards to Copan and Cortes Projects.
- g) Orientation on new map format to INA's Project Coordinator.
- h) Review of progress on quality control activities in Copan and Cortes.
- i) Discussion on Quality Control Manual of Proce-

- dures developed by the Consultant.
- j) Discussion on material certification delivered to INA.
 - k) Discussion on the preparation of budget document for the Department of Yoro.
 - l) Discussion on results of the first quality control done by INA on maps of Copan.
 - m) Discussion on recommendation for including the Geodetic network control points on the orthophotomaps.
 - n) Discussion on the recommendation for mechanizing the drafting of municipal maps.
 - o) Discussion on procurement of equipment and materials; the need to reinforce quality control activity in Copan and the need to review symbology and foot notes on final maps and the property owners registry.
 - p) With the Pres. of Clapp and Mayne, Inc. and the Executive Director, discussion on the de-ratability of mechanizing DEC's administrative processes.
 - q) Analysis of budget and scope of work of the Local Development for the Agrarian Reform of La Paz/Intibuca Project.
 - r) Discussion of technical problems; such as:
 - 1) Delineation of urban developed areas
 - 2) Delineation of right of ways
 - 3) Delineation of rural unfenced parcels
 - 4) Field classification of private "sitios"

2. Analysis of cash flow, actual operating expenses, maps delivered to INA and work certification. These analyses served to prepare three graphs to demonstrate the cash problems caused by the FAR system.

3. Development of a computer program (BASIC) to calculate costs of materials for project budget preparation.

4. Edition of Rural Delineation Manual of Procedures.

5. Reproduction and distribution of Quality Control Procedures Manual.

6. Preparation of the document for Project Agreement No. 5 - Department of Yoro.

7. Preparation of a paper and graphic material for the XII Cartographic Week.

8. Participation in the XII Cartographic Week held in

Costa Rica.

9. Field trip to San Pedro Sula for training session on quality control .

10. Designed a new map format which was adopted for Copan's final maps.

11. Office mapping procedures demonstration to INA/PTT officials.

12. Design and implementation of a new methodology to be applied in processing cartographic material received from the field.

C. Activities Carried Out By the Computer Analyst

1. Flow-up activities in the installation of new DEC's computer equipment.

2. Preparation of technical specifications for the site that will house INA's computer equipment.

3. Training course in Administration for the Operative system (SMT IV).

4. Analysis of the programs that register PTT's beneficiaries to look for the possibility of duplicating the benefits to a title recipient.

5. Report on beneficiaries submitted to Eng. Emil Falck (AID) to be used for developing a credit program for PTT's beneficiaries.

6. Obtention of Ministry of Finance's clearance for purchasing INA's computer equipment.

7. Completion of four (4) advanced training courses

for programmers.

8. Analysis of the possibility of acquiring a terminal (screen) and printer for the Natural Resources Department.

9. Test of the package for processing graphic polygons (GPPU).

10. Support activities to AID's Audit Team.

11. Computer facilities demonstration to PTT/INA officials.

12. Due to a strike at INA, full time efforts were put to DEC's activities. The strike lasted for 27 working days.

D. Status of the Project

1. Department of Santa Barbara

Delineation activities began in Santa Barbara on May 10, 1983 and finished on September 7, 1984; eight (8) months behind schedule. Total actual cost of this project amounted to Lps. 1,445,377.90

The following table depicts some relevant statistical data:

Project Cost	.....	Lps. 1,445,377.90	
Total Area	.....	351,818.58	Has.
Govt. Lands	.....	181,499.80	Has.
Private Lands	.....	170,318.78	Has.
% of Govt. Lands	.....	51.60	%
% of Private Lands	.....	48.40	%
Total Parcels (Govt. Lands)..		21,373	
Delineated Orthophotos.....		134	
Ave.Parcels/Map	.....	160	
Ave. Parcel Size	.....	8.49	Has.
Parcels Subject to Titling...		19,841	
% Parcels Subject to Titling.		92.8	%
Cost/Delineated Parcel.....		Lps. 67.63	
Cost/Parcel Subject to Titling		Lps. 72.85	

2. Department of Comayagua

Project Agreement No. 2 was signed on April 24, 1984 and expired on December 31, 1985. Actual field work began on April 27, 1984 and the project was finished on May 1986; five (5) months behind schedule.

Delay in finishing this project was due to the fact that INA rejected some 900 delineated parcels because of poor delineation work quality. The following table depicts some relevant statistical data of this project:

Project Cost	.....	Lps. 2,215,494.37	
Project Area	.....	542,397.87	Has.
Govt. Lands	.....	301,961.65	Has.
Private Lands	.....	240,436.22	Has.
% Govt. Lands	.....	56	%
% Private lands	.....	44	%
Parcels on Govt. Lands.....		32,566	
Delineated Orthos	.....	210	
Ave. Parcels/Map	.....	155	
Ave. Parcel Size	.....	9.27	Has.
Parcels Subject to Titling..		30,873	
% Parcels Subject to Titling		94.8	%
Cost/Delineated Parcel.....		Lps. 68.03	
Cost/Parcel Subject to Titling		Lps. 71.76	

3. Department of Copan

Project Agreement No. 3 was signed on January 29, 1985 and will expire on December 31, 1986. Actual field delineation work began on February 4, 1985 and it is expected to be finished as scheduled. The following table depicts some relevant data of the project progress up to the end of this period:

Total Area Delineated	210,114.12	Has.
Govt. Owned lands	106,968.50	Has.
Private Owned Lands	103,145.62	Has.
% of Govt. Owned lands.....	50.9	%
% of Private Owned lands.....	49.1	%
Parcels Delineated on Govt. Lands	15,400	
Delineated Orthophotomaps.....	91	
Ave. Parcels/Map	169	
Ave. Parcel Size	6.95	Has.
Parcels Subject to Titling.....	14,729	
% of Parcels Subject to Titling	95.6	%

4. Department of Cortes

Project Agreement No. 4 for this project was signed on August 23, 1985 and will expire on November 30, 1987. The total cost budgeted for this project was Lps. 2,015,201.40

Actual field work began on August 23, 1985 and is expected to be finished by May 1987. At the end of the period a total of 187,297 Has. has been delineated as follows: 163,262 Has. on government owned lands and 24,031 on private owned lands. A total of 68 orthophotomaps were delineated encompassing 14,077 parcels. It is estimated that, as of the end of this period, 47 % of this project has been finished at fie.

III. PROBLEMS ENCOUNTERED

During the period, the project has faced serious administrative and technical problems; some have been solved but others are still adversely affecting the progress of the project. Each problem will be discussed under two general classifications - administrative and technical.

A. Administrative Problems

1. Lack of Vehicles and Spare Parts

At the end of the period, field delineation work is carried out by 121 employees. There are 49 vehicles (jeeps) assigned to the Regional Office for field work and supervision. Vehicles distribution, by activity, is as follows:

Administration	.....	2
Quality Control	.....	8
Parcel Delineation	.....	30
Field Supervision	.....	8
Fleet Maintenance	.....	1
Total	.....	49

There are four to six vehicles that cannot be used because there are no spare parts needed for major repairs.

DEC is badly needing to increase its vehicle fleet to provide the field delineation transportation needs. DEC has no available funds to repair some additional vehicles nor to renew its fleet. Most of the delineation work has to be done on foot, causing a low rate of production.

2. Deficient DEC's Managerial Capacity

It is observed that DEC's managerial capacity is still deficient. For example, there are no written procurement procedures, personnel administration procedures, and deficient administrative supporting services.

Although an administrative audit to improve DEC's administration was made and its final report submitted to AID and DEC, no further action has been taken since then (March 1985) to implement the recommendations included in said report.

B. Technical Problems

1. Duplication of Delineated Orthophotomaps

INA requires a copy of every delineated orthophotomap. To comply with this requirement, DEC has to manually duplicate each delineated orthophotomap. This process is time consuming and delays the progress of the project. It has been contemplated to reproduce these materials by computerized means, but this decision has been postponed until the new, more capable, computer is fully operative.

2. Methodology used for Establishing the Mechanism for Granting Fee Simple Property Titles

a. Delineation of Present Land Use

Project Agreement states that: "on delineated property, present land use will be determined. Discontinuous lines will mark the areas of subparcels planted in coffee, cane, pasture, basic grains or covered in forest or bushes in accordance with standardized crop classification chart."

This requirement has proven to be of no use for

the titling process, thus delaying field delineation activities and unnecessarily spending project funds.

This condition has been highlighted by the Project Evaluation Team on its final Evaluation Report submitted to AID on August 1985 (See recommendation on page 30; Section 4.d, Chapter II; Mid-Point Evaluation Report- Land Tenure Center; University of Wisconsin).

b. Individual Property Maps

INA requires an individual property map for each parcel to be titled. These maps are prepared by DEC's Computer Center. This activity consumes too much effort in terms of computer time.

INA only uses these maps for incorporating them into the records which are filed. The shape of each parcel appears on the final map, on the delineated orthophotomap, and on the cadastral card; thus this practice results in an unnecessary duplication of efforts.

c. Establishment of Adjoining Property Owners Names

INA requires that the names of adjoining property owners of each parcel appear on the "ficha catastral". This type of data registry is time consuming and delays the mapping process.

It has been recommended that instead of filling out adjoining property owners names on the cadastral card, it should be registered the adjoining parcel numbers only.

These type of data is permanent in its nature. Using said data, DEC could mechanically produce a list containing adjoining property owners, if INA really need these data. This recommendation was also turned down by INA officials.

d. Pin - Pointing Landmarks on Orthophotomaps

Exact location of landmarks are determined stereoscopically on 1:42,000 scale aerial photography and then these points transferred (by photoidentification) to 1:10,000 scale orthophotomaps. Even for the experienced delineator, working with two different scaled documents is very difficult. Difficulty is enhanced when the aerial photograph and its corresponding orthophotomap are produced from different dated negatives. Transferring points from the aerial photography to the orthophotomap in these cases demands special skills and efforts.

To cope with these difficulties it was recommended that DEC should purchase a transferscope in order to reduce photoidentification efforts to a minimum. Landmarks in the field are pinpointed on the aerial photography and then, in the office, using the transferscope said points are transferred to the orthophotomaps. This technique will speed-up field delineation production and reduce errors to a minimum.

This recommendation was turned down BY INA and AID officials because there are no funds available for acquiring any more equipment from project funds.

IV. PLANS FOR THE ENSUING PERIOD

As two main activities are carried out by the Consultants, i.e. cartography and electronic data processing, plans for the ensuing period are separately presented according to the above mentioned fields of expertise; however, we have included plans for the administrative phase of the project as part of the plans to be developed by the Cartographer/Project Director.

A. Cartography

1. In-service DEC personnel training on the best use of orthophotomaps, aerial photography and quality control.
2. Continuous monitoring of both field and office activities in order to keep map production submission to INA on schedule for the titling process.
3. Field trips, as necessary, for technical assistance to delineators and quality control teams in the solution of special and/or complex problems.
4. Follow-up on the implementation of recommendations for improving quality and quantity of materials to be submitted to INA for the rational use of project funds.
5. Adjustments to Copan and Cortes work plans for on time delivery of delineated maps to INA.
6. Development of office maps processes Manual of Procedures.
7. Close consultancy work with the Head of the

Engineering Department in all matters concerned with schedule of projects, cash flow, procurement, technical reports, etc.

8. Design a new cadastral numbering system.

9. Development of a Cadastral Maintenance System Manual of Procedures.

10. Development of a Cadastral Demonstration Project for the Municipality of Villa de San Antonio in Comayagua.

B. Electronic Data Processing

1. Computer's site preparation at INA's facilities

a. Bids evaluation and contract award

b. Follow-up on availability of AID funds for site preparation.

c. Supervision of site preparation work

2. Implementation of the personnel training plan.

3. Completion of EDP personnel training courses.

4. Development and implementation of mechanized DEC's administrative processes.

5. Development of DEC's Computer Center Manual of Procedures.

6. Follow-up activities for INA's Computer Center site preparation.

V. RECOMMENDATIONS

This chapter incorporates the Consultants' recommendations covering current needs in the fields of cartography and administration.

A. Cartography

Under this category, we have grouped all recommendations pertaining to both field and office delineation and map producing activities.

1. Present land use (parcel level) delineation should be eliminated. This recommendation, if implemented at the time it was originally suggested, it would have roughly save an estimated amount of \$ 2,000,000.00 to the project during its life.

2. Individual property maps should be eliminated. These serve no practical use or purpose for the titling process.

3. It is strongly recommended, to improve delineation work quality, that DEC be authorized to purchase a transferscope from project funds.

4. Telephone communications between the Central Office and Copan and Cortes Regional Offices are non - existent. There are no available telephonic lines to establish such needed communications.

It is recommended that a radio communication equipment be acquired and installed as soon as possible.

B. Administration

1. Although the administration aspect is not the core of this technical assistance contract, deficiencies observed in this area is affecting the map production rate. To cope with this problem, AID provided two (2) additional person/months of service into this contract to carry out an administrative audit of DEC.

The final report was submitted to both AID and Dec on March 27, 1985. As the magnitude of the deficiencies pointed out in the report were such character that it was suggested that recommendations should be implemented as soon as possible; DEC, at the end of this period, has failed to do so.

2. It is recommended that FAR system be modified or deleted. Instead, funds advancements should be made through a special revolving fund in order that the field activities could be smoothly performed.

PART II
ADMINISTRATIVE REPORT

CLAPP AND MAYNE, INC.

HONDURAS SMALL FARMERS TITLING
TECHNICAL ASSISTANCE PROJECT

ADMINISTRATIVE REPORT

This semi-annual report covers the period April 1, 1986 through September 30, 1986.

The following personnel worked in the project during this period:

1. Mr. Miguel A. Nunez - Cartographer
2. Mr. Ibrahim Medina - Computer Analyst

During this period the third amendment to the contract was signed to extend the contract thru August 28, 1987.

Attached is the summary of costs incurred during the period and costs to date under the project.

CLAPP AND MAYNE, INC.

HONDURAS SMALL FARMERS TITLING
TECHNICAL ASSISTANCE PROJECT

SUMMARY OF COSTS INCURRED

<u>Budget Category</u>	<u>Budget Amount</u>	<u>Total Expenditures</u>	
		<u>Beginning of Contract thru Sept. 30, 1986</u>	<u>Period April 1, 1986- Sept. 30, 1986</u>
Salaries	\$229,977	\$163,657.98	\$ 37,182.60
Fringe Benefits	48,824	31,863.90	4,693.50
Overhead	125,460	87,984.84	18,844.24
Travel & Transp.	54,423	23,361.65	264.00
Allowances	154,215	102,645.00	19,824.92
Other Direct Cos	<u>5,455</u>	<u>2,891.13</u>	<u>851.19</u>
Total Costs	\$618,354	\$412,404.50	\$ 81,660.45
Fixed Fee	<u>48,676</u>	<u>32,992.34</u>	<u>6,532.83</u>
Grand Total	<u>\$667,030</u>	<u>\$445,396.84</u>	<u>\$ 88,193.28</u>