

PD - AAP - 95-8

SMALL FARMER TITLING
TECHNICAL ASSISTANCE PROJECT
HONDURAS

SEMIANNUAL REPORT
(Period March 19-September 30, 1984)

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

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October 22, 1984

M E M O R A N D U M

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

From : Mr. Edibaldo Silva-López,
Clapp and Mayne, Inc. *Edibaldo Silva-López*

Subject : First Semi-Annual Report
Honduras Small Farming Titling
Technical Assistance Project
Contract #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 first Semi-Annual report on the subject contract.

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

ESL:arm
encls: as cited above

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ADMINISTRATIVE REPORT

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 entitled "Reports", and constitutes the first semiannual report of the project, covering the period of March 19 to September 30, 1984.

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

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.

The purpose of the Project is to establish a coordinated and functioning system for the titling of rural 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 Bárbara.

On August 30, 1982, the Republic of Honduras (GOH) and the United States of America, acting through the Agency for International Development (AID) signed the Project Agreement for AID Project No. 522-0173,

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, AID, 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). Also, an additional amount not to exceed one million five hundred thousands dollars (\$1,500,000) is granted to GOH as AID's contribution to the Project.

The Project consists of three (3) principal 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 second activity above mentioned, i.e., the delineation of rural properties. 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. Working from aerial photography and orthophoto maps, delineation teams, supervised by the Executive Direction of Cadastre (DEC) will identify existing property boundaries.

The DEC working under INA's supervision will produce delineated ground plots. Working from aerial photos (scale 1:40,000) and ortho-photo maps (scale 1:10,000), the DEC will proceed to delineate properties based upon field verification of boundaries. Ground plots, along with the identification of the owner/occupant and land use information, will be submitted to INA and the delineation subsequently programmed into the existing computer capacity of the DEC for producing standardized property maps (scale 1:10,000) of the entire area.

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

Within each municipality, two types of property delineation will take place. After the title searches are completed, the outside boundaries of all properties held in "dominio pleno" will be 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 the municipality identifying all lands by their legal status (public or private lands) will be produced.

Except for the identification of the outside boundaries of "sitios privados", the Project will not work with lands held in "dominio pleno".

Once public lands are identified, as above, delineation teams will begin to identify and delineate individual farm properties located on public lands. As properties are identified and delineated, a "ficha

catastral" will be completed. 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 will be subsequently computerized and a cadastral number will be assigned.

In the office, DEC will calculate the area of each property, and will prepare a list of the properties with area and land use information. All these materials produced by DEC are to be submitted to INA for the beginning of the titling process.

As the delineation responsibility falls under the 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 (INA-DEC) with respect to the undertakings of each institution.

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

The second agreement for financing DEC's delineation activities in the Department of Comayagua was signed on April 24, 1984.

II. STATUS OF THE WORK UNDER CONTRACT

A. Consultants Mobilization

The first specialist, the Cartographer/Project Director, Eng. Miguel A. Núñez Delgado, arrived at the project on March 19, 1984; followed by Mr. Ibrahim Medina Martínez, Computer Analyst, who arrived on July 23, 1984.

B. Activities Carried Out by the Cartographer/Project Director

1. Introductory meetings were held at AID/Honduras, INA and DEC offices to discuss scope of work, status of work already done and overall status of the project.

2. Study of office procedures for processing cartographic data received from the field. As no detailed procedures were written at that time, the Cartographer proceeded to write a detailed procedure for processing the cartographic data received from the field. A flow chart of this procedure was developed.

3. A sound and practical production information system (both field and office) was developed and installed.

4. A new section was created at the DEC's level for carrying out quality control of field delineation.

The Cartographer developed (and was implemented) the organization of the Quality Control Unit. Functions and responsibilities of this unit were written as well as the detailed working procedures of the unit were developed and its production information systems was designed and implemented.

5. A study of the physical facilities of the Engineering Department of DEC was made. Relocation of desks and other furniture was made for optimum use of the available space. Also a study for the reorganization of the Central Cartographic file was made. Written procedures for the Cartographic file inventory were developed and such inventory was started.

6. An administrative study for the procurement of supplies and equipment was made and recommendations were submitted to DEC's Executive Director. At the end of the period no action had been taken in this respect.

7. An analysis of the cartographic and alfa-numeric materials, which are delivered to INA, was made. As a result of this study it was found that these materials contained a lot of duplications and recommendations were made to speed-up the delivery of these materials to INA. The only recommendation accepted and implemented was the elimination of the present land use in the final maps. This activity consumed 42% of the digitizing time and DEC's Computer Center.

8. Project Agreement No. 2, between INA and DEC, for the financing of the delineation of rural properties to be titled in the Department of Comayagua was developed. This document contained the detailed work plan as well as the budget. Negotiations meetings were attended by the Cartographer (and other DEC officials) and the document was signed on April 24, 1984.

9. In-service training to calculators was conducted. This training consisted on how to determine the electronic planimeter constant

for its programming using any scale. Also this personnel was trained on how to use the electronic planimeter to calculate linear distances.

10. A three-day visit to INA's Sectorial Office in Santa Bárbara was made for the purpose of evaluating the present titling process. As a result of this visit a memorandum containing some recommendations was submitted to the Project Coordinator; however, none of the recommendations were implemented.

11. Several field trips were made to supervise the field delineators and quality control crews. During these trips (together with the Engineering Department Chief) special instructions were given to delineators in regards to the delineation procedures to speed-up field production.

12. Weekly meetings with key supervision personnel of DEC were held in order to solve technical and operative problems. Also in these meetings, field and office work progress were discussed and recommendations for solving problems were made.

13. Classroom lecture to delineation students on Cartographic principles and real property valuation was delivered as part of a training course sponsored by DEC in Siguatepeque for 60 delineator candidates.

14. In the opinion of the Cartographer/Project Director, his most relevant contribution to this Project during the period is an evaluation carried out of the methodology used in the field delineations of rural properties.

Annex I of the Project Agreement signed by the United States Government and the GOH, on its page 8, No. (3) states: "on each delineated property, actual land use will be determined. Discontinuous lines will mark the areas or subparcels planted in coffee, cane,

pasture, or basic grains, or covered in forest or bushes in accordance with the standardized crop classification chart."

This condition proved to affect adversely the on-time production of field delineation of properties as evidenced by the experience in the Department of Santa Bárbara. To comply with this requirement in the delineation of the Department of Santa Bárbara a total of 21,288 rural parcels were delineated. In addition to the first land use, 13,800 subparcels (land use) were delineated, for a total of 35,088 parcels actually delineated. This represents an additional 64.83% of delineation work. In the evaluation made it was discovered that INA does not need, nor it makes any use at all of the present land use delineation for its titling process.

Actually, INA (mandatory by law) has to determine the present land use of each parcel. This task cannot be delegated to any other government agency. All data used regarding to land use has to be established or determined by INA's own personnel (Agronomists). This means that the Project is financing a duplication of efforts, which is causing delays in field delineation production and expanding funds on an unnecessary activity. For example: present land use field delineation in Santa Bárbara roughly cost L490,786.12 (\$245,393.06) or L1.43/Has. (Total of 343,359 Has). For the remaining six Departments, the present land use delineation cost will be L4,262,469.64 or \$2,131,234.82 or 19% of total cost of the Project (for 2,980,748 Has). This amount could be saved if the present land use delineation is eliminated from the delineation activities assigned to DEC.

If the same delineation methodology is to be followed in the delineation of the remaining six Departments, it would take 10.13 years to complete fieldwork only, which is longer than the five years estimated for completion of the titling of these Departments.

If this activity is eliminated, the field delineation activity could be done faster in the field. (It represents a field and office work reduction of 39%).

This recommendation was made to INA officials, but unfortunately, not accepted for two reasons: (1) INA is of the opinion that the Project Agreement cannot be amended; and (2) they felt that the present land use information could be needed in the future for other purposes.

The Consultant strongly opposed to this two INA's points of view for the following reasons: (1) it is clearly stated in the Project Agreement (Article 2, Section 2.1; pages 1 and 2) that "within the limits of the definition of the Project in this Section 2.1, elements of the amplified description stated in Annex I may be changed by written agreement of the authorized representatives of the Parties named in Section 9.3; without formal amendment of this Agreement"; and (2) if the present land use data is to be used in the future it would be of no value because it would be outdated, firstly, and secondly, data on land used developed by any other agency than INA would be useless as stated by law (Reglamento Reforma Agraria).

At the end of the period the Cartographer/Project Director is still pushing with AID/Honduras Project Officials in order to implement the elimination of present land use delineation from the responsibilities

assigned to DEC in order to save money and speed up the delivery of cartographic material to INA for the titling process thus attaining project goals within the time programmed for the project.

C. Activities Carried Out By the Computer Analyst

The computer analyst came on-board to the Project on July 23, 1984 and has worked only two and a half (2-1/2) months during this period.

Among the activities carried out by him are the following:

1. Introductory meeting - held at AID/Honduras, INA and DEC offices to discuss scope of work, project status and priority areas of his assignment.
2. Visits to INA's and DEC's computer centers.
3. Study of RFP for the procurement of the interactive graphic equipment to be purchased for DEC.
4. Detailed study of the present situation of INA's computer center.
5. Analysis of the report submitted by IBM/Honduras on the present INA's computer center and its recommendations.
6. Report to AID on the Computer Specifications for Cadastre. This report contains three recommendations to be included in the RFP; these are: the RFP should include a paragraph stating that the equipment should provide telecommunication capabilities to:
 - a. support remote display stations and printers on communication lines.
 - b. allow interactive entry, inquiry and up-dating of master files located at other sites.
 - c. allow remote entry of jobs and obtain their results.
7. Study of the report prepared by Development Associates in April, 1983 on INA's Administrative Analysis.

8. Study of the present situation between INA's Computer Center and the Agrarian Debt Section of the Small Farmer Titling Project and development of a two-month plan to up-date registry and billing of 5,300 properties titled.

9. Design and documentation of the accounts receivable system of the Titling Project.

D. Status of the Project

1. Department of Santa Bárbara

On April 27, 1983, INA and DEC signed Project Agreement No. 1 for financing delineation work in the Department of Santa Bárbara at a cost of L1,624,088.77. The Department of Santa Bárbara covers an area of 343,359 Has. Actual fieldwork started on May 10, 1983. The first six (6) delineated maps (148 parcels) were delivered to INA on September 6, 1983 (4 months later). Field production was very slow during the first 8 months of the life of the Project. Also, the quality of the delineation work was very poor. The work had to be done more than once because the delineators lacked experience. Full production was attained during the month of March 1984. The Project was completed on September 7, 1984 (eight (8) months behind schedule), when all the 134 delineated orthophoto maps were delivered to INA.

A total of 134 delineated orthophoto maps were produced encompassing 21,288 parcels on government lands. In addition to these parcels, a total of 13,800 subparcels corresponding to present land use were delineated for a total of 35,088 actual delineation work in the field.

2. Department of Comayagua

On April 24, 1984, INA and DEC signed Project Agreement No. 2 for financing delineation work in the Department of Comayagua at a cost

of L2,401,242.14. The Department of Comayagua covers an area of 516,258 Has. This Project was scheduled to begin on April 1984 and to be finished on December 1985. Actual delineation fieldwork is scheduled to be finished by January 1985. It was agreed by both institutions (INA and DEC) to exclude 86,800 Has from the area to be delineated because DEC had recently delineated that area in 1982; thus a quick review of this work was scheduled to be done (actually 20% of this work was to be reviewed).

Actual field delineation work began on April 27, 1984. Deliveries to INA were scheduled to start on June 1984, but at the end of the period not a single delineated map had been delivered to INA.

At the end of the period (September 30, 1984) a total of 26 delineated ortophoto maps were received from the field for office processing. Eleven (11) of these have been processed (2,460 parcels) by the Map Section and delivered to the DEC's Computer Center for digitizing and preparation of final maps for delivery to INA.

Annex I shows progress achieved in the fieldwork of the different activities, such as boundaries of properties held in "dominio pleno" (known as delineation of administrative limits); parcel delineation, and quality control.

Annex II shows progress achieved in the office activity in the Map Section as well as the processing of the delineated ortophoto maps in the DEC's Computer Center.

Annex III is composed of three (3) graphs which show the progress achieved against the progress scheduled in the three different field delineation activities of the Project.

From the interpretation of these graphs it is concluded that:

a. Administrative limits delineation activity is 0.52 months ahead of schedule. If the same production rate is kept, this activity would be finished in 7.25 months or 0.75 months ahead of schedule.

b. Parcel delineation activity is 1.71 months behind schedule. This delay obeys to a reduction in force in the delineation crews to reinforce the quality control crews. If the same production rate is kept, this activity would take 12.03 months or 3.03 months longer than programmed. It is expected to catch-up the scheduled production in the months ahead because there are a lot of private properties in the remaining area to be delineated which the Project will not take into consideration.

c. The quality control operation is by far behind schedule. It is considered to be 4.90 months behind schedule and if the same production rate is kept, it would take 20.03 months for its completion, which is eleven (11) months longer than programmed.

Several actions have been taken to speed-up this operation, such as: a review of the approach to the fieldwork (methodology); increase of the field crews; design and implementation of an indirect supervision system (daily production reports); and a closer central office supervision. These actions are to be taken during next month (October 1984).

Annex IV presents a consolidated production report on the field delineation activities of the Project in the Department of Comayagua.

At the end of the period, the Project is four (4) months behind schedule due to problems encountered in the field which will be discussed in the following chapter of this report.

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 Project. In the opinion of the Project Director, these problems have to be solved if the Project is to be successful. Each problem will be discussed extensively under two general classifications --administrative and technical.

A. Administrative Problems

1. Frequent Turnover in DEC's Executive Direction

During the period, DEC has had three (3) Executive Directors. The last one has been on duty since April 4, 1984. This situation caused a lot of administrative problems.

2. Turnover in the Head of the Engineering Department

On March 31, 1984 (12 days after the Cartographer arrived at the Project) the Chief of the Engineering Department resigned. His substitute was appointed on April 4, 1984 and transferred to the Valuation Department on April 16, 1984 (12 days on duty only). The Engineering Department functioned without its Chief until June 5, 1984, when the new Chief was appointed. The new Head of the Engineering Department has been working only 4 months in his post.

3. Procurement of Materials and Supplies in the U. S.

Acquisition of some specialized items of equipment and materials from U.S. services has delayed the Project. Due to restrictions of the GOH to obtain dollars for procurement from U.S. sources

has delayed the acquisition of photographic materials, computer spare parts, stereoscopic, and drafting equipment. The DEC Executive Director made some purchases in the U.S. but these were limited to photographic materials only. The Project is still lacking computer spare parts. In some instances, through Clapp and Mayne, Inc. offices in San Juan, we have bought special recording paper for the computer and other spare parts for the heliographic copying machine.

4. DEC's Salary Policy

One of the main problems that is causing a low productive rate in the field delineation activity is the salary paid to delineators and helpers. There are helpers making more money than delineators and delineators making more money than their supervisors. It was recommended that this situation has to be revised but at the end of the period the problem was still unsolved.

5. Deficient DEC's Managerial Capability

It is observed that DEC's managerial capability is very deficient. For example, there are no written procurement procedures, poor personnel administration (lack of job classification, pay scales, etc.), and deficient administrative support procedures.

It was recommended that a reconnaissance survey be made at DEC's level to improve its managerial capability, but no action has been taken so far.

6. Lack of Vehicles and Spare Parts

At the end of the period, fieldwork is carried out by the following personnel:

- 1 - Regional Office Chief
- 1 - Quality Control Chief
- 1 - Quality Control Assistant
- 10 - Quality Control Official
- 9 - Delineation Supervisor
- 90 - Delineators and Helpers
(45 crews of 2 each)

There are a total of 49 jeeps assigned to the Regional Offices for fieldwork; of those, 27 are assigned to the Regional Chief, Quality Control Chief, Assistant, and Quality Control Officials and 9 Delineation Supervisors. The rest, 21, are assigned to the 45 delineation crews. Not all the 49 vehicles are in working conditions. A total of six (6) vehicles are stationed at the Regional Office needing major repairs.

Only 15 vehicles are being used by the 45 delineation crews. There is one vehicle for three delineation crews (6 persons) for fieldwork.

DEC needs to increase its vehicle fleet to support the field transportation needs. DEC has no budget available to repair some additional vehicles nor to buy new units. Most of the delineation work has been done without any transportation other than on foot. This situation causes a low field delineation production rate.

B. Technical Problems

1. DEC's Intergraphic Computer Equipment

Existing computer equipment is very old (PDP 11/34); 96K computer parity memory). This equipment was acquired by DEC in 1978. As its maintenance has not been as it should, functioning failures occur every month and DEC lacks spare parts for repairing. Although

there is no maintenance contract, the Head of the Computer Department takes care of the equipment maintenance.

Failures have not caused considerable delays so far, but limitations in speed and memory present a real challenge to DEC's Computer Center.

Many improvements have been made, through sophisticated programs, to attain an optimum use of the computer.

This problem was to be solved by the acquisition of a new computer equipment through funds from AID; however, the RFP for this equipment has not been published yet.

2. Duplication of Delineated Ortophoto Maps

INA requires a copy of every delineated ortophoto maps. To comply with this requirement, DEC has to duplicate by hand each delineated ortophoto map. This process is time consuming and delays deliveries to INA. It has been contemplated to reproduce these ortophoto maps by means of the interactive computer equipment, but this decision has been postponed until the new, more capable computer equipment is received and installed.

3. Methodology Used to Establish a Functioning Mechanism for the Granting of Fee Simple Property Titles

a. Delineation of Present Land Use

Annex I of the Project Agreement between U.S. Government and GOH (signed on August 30, 1982) amplifies the definition of the Project and its Article B, Project Activities, Section B.2, a.(3); page 8 of 20, establishes the following: "on each delineated property, actual land use will be determined. Discontinuous lines will mark

the areas or subparcels planted in coffee, cane, pasture, or basic grains, or covered in forest or bushes in accordance with the standardized crop classification chart;"

This requirement has proved to be of no use to INA in the titling process, thus delaying field delineation activities and spending project funds unnecessarily.

An evaluation made by the Project Director of this aspect of the Project in the Department of Santa Bárbara revealed the following:

- a) Field delineation work was increased by 64.83% as a result of delineating 13,800 additional subparcels of present land use.
- b) Present land use delineation cost L1.43/Has. for a total cost of L490,786.12.
- c) Field delineation activity took 428 calendar days. If the present land use delineation had been eliminated it would take only 9 months or 270 calendar days.
- d) If the same production rate is kept in the other six (6) remaining Departments, it would take 10.13 years to complete field delineation activity only for the whole project. This is twice the time contemplated for the life of the Project.
- e) The cost of the present land use delineation for the remaining six (6) Departments would be in the order of L4,262,469.64 or 19% of the total project budget.

The Project Director recommended the elimination of the field activity of delineating the present land use to speed-up the

field delineation and to save project funds. INA officials turned down this recommendation based on the reasoning stated elsewhere in this report. Project Director is still pushing AID/Honduras officials to implement this recommendation.

b. Parcel Sketch on Cadastral Cards (Ficha Catastral)

INA requires that a "ficha catastral" be prepared for every delineated parcel. In some instances, parcels are crossed by borders of private "sitios", Departments or Municipality borders. In these cases INA requires to prepare an additional "ficha" for each fraction of the parcel affected. The only differences between these "fichas" are the sketches of the property, all other data remain identical.

This activity consumes too much time at the office level and causes a lot of problems at INA's Legal Department in the issuance of titles.

c. Individual Property Maps

INA requires an individual property map for each parcel to be titled. These maps are prepared in the DEC's Computer Center. This activity consumes too much time at the Computer Center. Because of the memory limitations of the computer equipment, when the plotter is used in this activity the computer cannot be used in any other activity.

INA only uses these maps for incorporating them into the records which are filed at INA. The shape of the parcel appears on the final map, on the delineated ortophoto map and the "ficha catastral".

d. Establishment of Adjacent Property Owners

INA requires that the names of adjacent property owners of each parcel appear in the "ficha catastral". As the "fichas catastrales" are filled out by the Helpers ahead of the delineation activity, it is very difficult to match property owner names on the "fichas catastrales". Each Helper has to prepare a property owners list, identified by parcel number, and then each property owner name has to be checked on the card in order that the adjacent property owner names are properly registered. This is a very time consuming activity which also delays field activity. It has been recommended that instead of filling out adjacent property owner names on the cards it should be registered only the adjacent property parcel numbers which is a permanent data and then, mechanically produce a register which contains the adjacent property owner names, if INA really needs these data. This recommendation was also turned down by INA officials.

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 presented separately according to the above mentioned areas.

A. Cartography

1. Design of a fully compatible mapping maintenance system through which INA and DEC may exchange all types of information and data relating to the up-dating of ortophoto maps.

2. Establishment of a coordinated quality control system for map production which takes into account the implementation of recommendations for speeding-up field delineation activities, including the incorporation of new methodology approaches to fulfill project goals.

3. In-service DEC personnel training on the best use of ortophoto maps, aerial photography and quality control standards

4. Elaboration of the third Project Agreement for next Department to be delineated. So far INA has not decided whether it would be Copán or La Paz. Project Agreement includes scheduling of activities and determination of economic resources to carry out the Project.

5. Completion of the inventory and reorganization of the Central Cartographic file of the Department of Engineering of DEC.

6. Continuous monitoring of both field and office activities in order to keep map production deliveris to INA on schedule for titling process.

7. Field trips, as needed, for technical assistance to delineators in the solution of special problems.

8. Follow-up on the status of the implementation of recommendations for improving on time deliveries to INA and for a rational use of Project funds.

B. Electronic Data Processing

1. At DEC's Office

- a. Study of the systems (files and programs) as preliminary steps towards the implementation plan
- b. Personnel evaluation to determine needs for training and developing training recommendations
- c. Evaluation of computer suppliers proposals
- d. Selection of computer supplies
- e. Preparation of the implementation plan for:
 - 1) new equipment installation
 - 2) files conversion
 - 3) training for programmers, operators, and users, if necessary.
- f. Site preparation for the installation of the new equipment (access areas, temperature, electricity, humidity controls, etc.)
- g. Installation of the new computer equipment

2. At INA's Office

- a. Proposals evaluation and selection of equipment
- b. Writing of needed specifications in relation to the new equipment to be hooked to the "Catastro" equipment.
- c. Preparation of the implementation plan
 - 1) installation
 - 2) training

V. RECOMMENDATIONS

This chapter incorporates the Consultant's recommendations covering the current needs in the fields of cartography and electronic data processing covered under the terms of this contract. Also, are included some recommendations in the areas of administration and approach to the project not included under the terms of this contract, which will improve the overall performances of both institutions --INA and DEC.

A. Administration

1. To improve DEC's Managerial Capability, it is recommended that a short-term technical assistance be given for strengthening its managerial capability. This technical assistance should be aimed at the development of DEC's improved organization, strengthening its personnel administration and the development of systems and procedures in the areas of: procurement, vehicle maintenance, and other administrative supporting services.

A cost accounting system for the Small Farmer Titling Project should be designed and implemented at DEC.

2. Under the Administrative Technical Assistance, a classification and pay study should be undertaken to cope with inequities of the present classification and pay system.

3. DEC's vehicle fleet should be increased. For this purpose it is badly needed that some extra funds be provided to DEC to buy new units and for the acquisition of spare parts.

B. Cartography

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

1. Present detailed land use (parcel level) delineation should be eliminated. Instead, as a planning tool, present land use study should be done at semi-detail level, grouping crop masses. (See Chapter III, Section B-3-a., for details).

2. INA's requirements on data to be included on the "fichas catastrales" should be revised to speed-up office procedures. (See Chapter III, Section B-3-b., for details).

3. Individual property maps should be eliminated. These serve no purpose at all and are causing a bottle neck in the Computer Center operations. (See Chapter III, Section B-3-c., for details).

4. Registry of adjacent property owners on the "fichas catastrales" should be eliminated, instead adjacent property numbers should be included. (See Chapter III, Section B-3-d., for details).

C. Electronic Data Processing

Although the EDP phase of the Project covers the installation of a new computer equipment at DEC's facilities and the corresponding access via computer hook-up through INA terminals, the data (administrative/legal/accounting) of the INA records are entered, processed and maintained in an IBM, System/34, 63.9 mega-bytes in disks and 64K memory. This computer is installed at INA's facilities. The disk storage capacity for the data needed by INA is not enough for the processing of over 100,000 records to be processed during the life of the project.

It is recommended the creation of an evaluating board for analyzing the following alternatives for the solution of this problem.

1. Substitution of the S/34 for a more modern equipment with larger memory capacity and space in disks
2. Enlarge the present memory capacity and disk space of the present S/34.
3. Acquisition of a new computer equipment for the exclusive use of the Small Farmer Titling Project.
4. That the data to be contained on the records be entered through terminals and the data be stored in the DEC's computer.

CLAPP AND MAYNE, INC.

Administrative Report
Honduras Small Farmer Titling
Technical Assistance Project

The Honduras Small Farmer Titling Technical Assistance Project was signed on March 12, 1984.

The personnel assigned to this project is as follows:

1. Cartographer - Eng. Miguel A. Núñez
2. Computer Analysts - Mr. Ibrahim Medina

The Cartographer arrived at the project site on March 19, 1984 and the Computer Analyst on July 23, 1984.

Attached is a summary of costs billed under the project thru September 30, 1984.

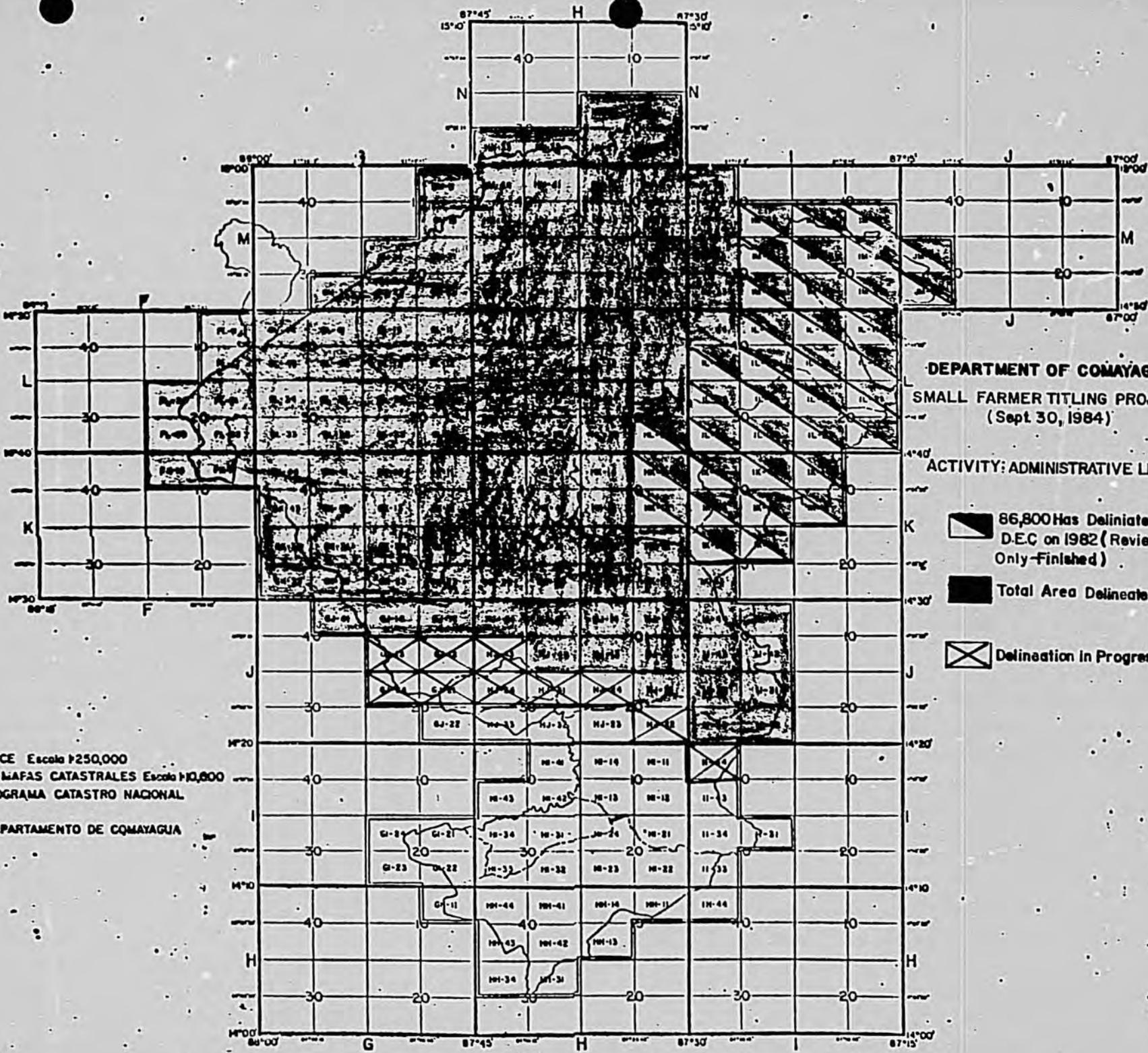
CLAPP AND MAYNE, INC.

Administrative Report
Small Farmer Titling Technical Assistance Project
Honduras

Summary of Costs Billed thru 9/30/84

<u>Budget Category</u>	<u>Budget Amount</u>	<u>Total Expenditures Billed thru 9/30/84</u>
Salaries	\$ 114,115	\$ 23,672.15
Fringe Benefits	26,281	4,381.53
Overhead	76,678	12,624.15
Travel and Transportation	47,608	17,090.71
Allowances	62,885	20,110.98
Other Direct Costs	<u>1,980</u>	<u>301.46</u>
Total Estimated Costs	\$ 359,547	\$ 78,180.98
Fixed Fee	<u>28,764</u>	<u>6,254.47</u>
Grand Total	<u>\$ 338,311</u>	<u>\$ 84,435.45</u>

ANNEX I
FIELD DELINEATION ACTIVITIES
PROGRESS CHART



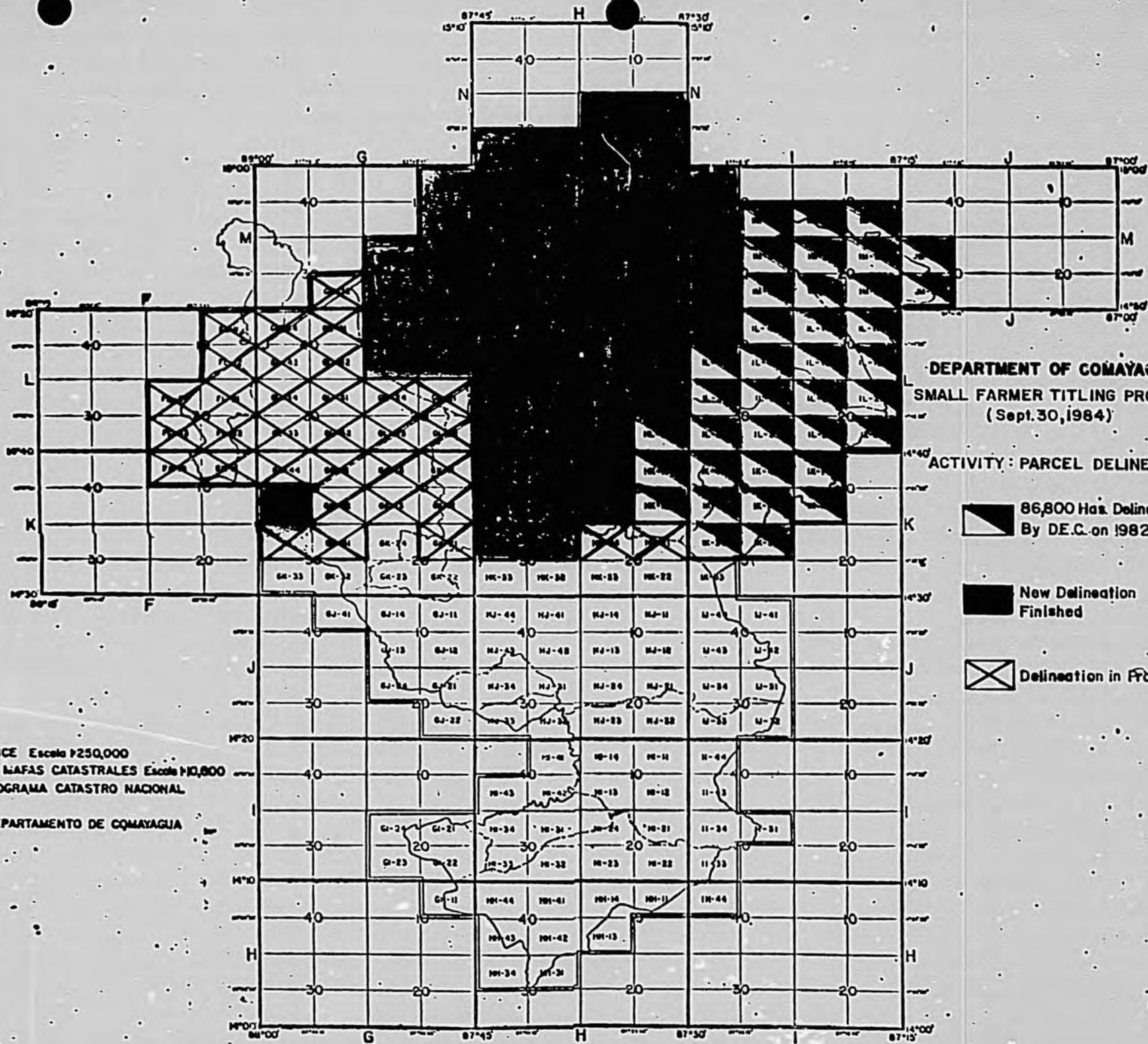
DEPARTMENT OF COMAYAGUA
SMALL FARMER TITLING PROJECT
 (Sept 30, 1984)

ACTIVITY: ADMINISTRATIVE LIMITS

-  86,800 Has Delineated By D.E.C on 1982 (Review Only - Finished)
-  Total Area Delineated
-  Delineation in Progress

INDICE Escala 1:250,000
 DE MAPAS CATASTRALES Escala 1:10,000
 PROGRAMA CATASTRO NACIONAL
 DEPARTAMENTO DE COMAYAGUA

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DEPARTMENT OF COMAYAGUA
SMALL FARMER TITLING PROJECT
 (Sept. 30, 1984)

ACTIVITY: PARCEL DELINEATION

-  86,800 Has. Delineated
By D.E.C. on 1982
-  New Delineation
Finished
-  Delineation in Progress

INDICE Escala 1:250,000
 DE MAPAS CATASTRALES Escala 1:10,000
 PROGRAMA CATASTRO NACIONAL

DEPARTAMENTO DE COMAYAGUA

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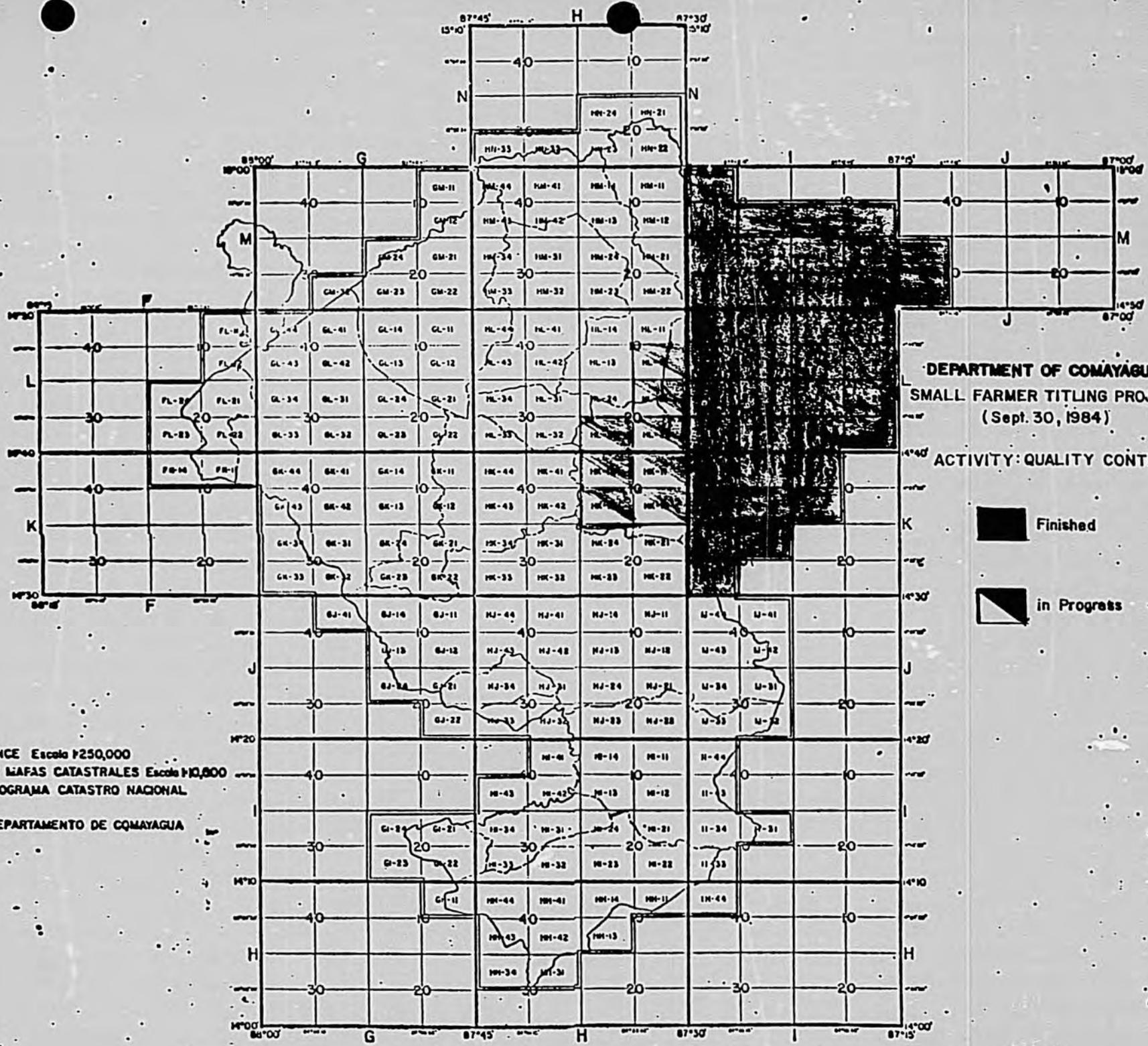
DEPARTMENT OF COMAYAGUA
 SMALL FARMER TITLING PROJECT
 (Sept. 30, 1984)

ACTIVITY: QUALITY CONTROL



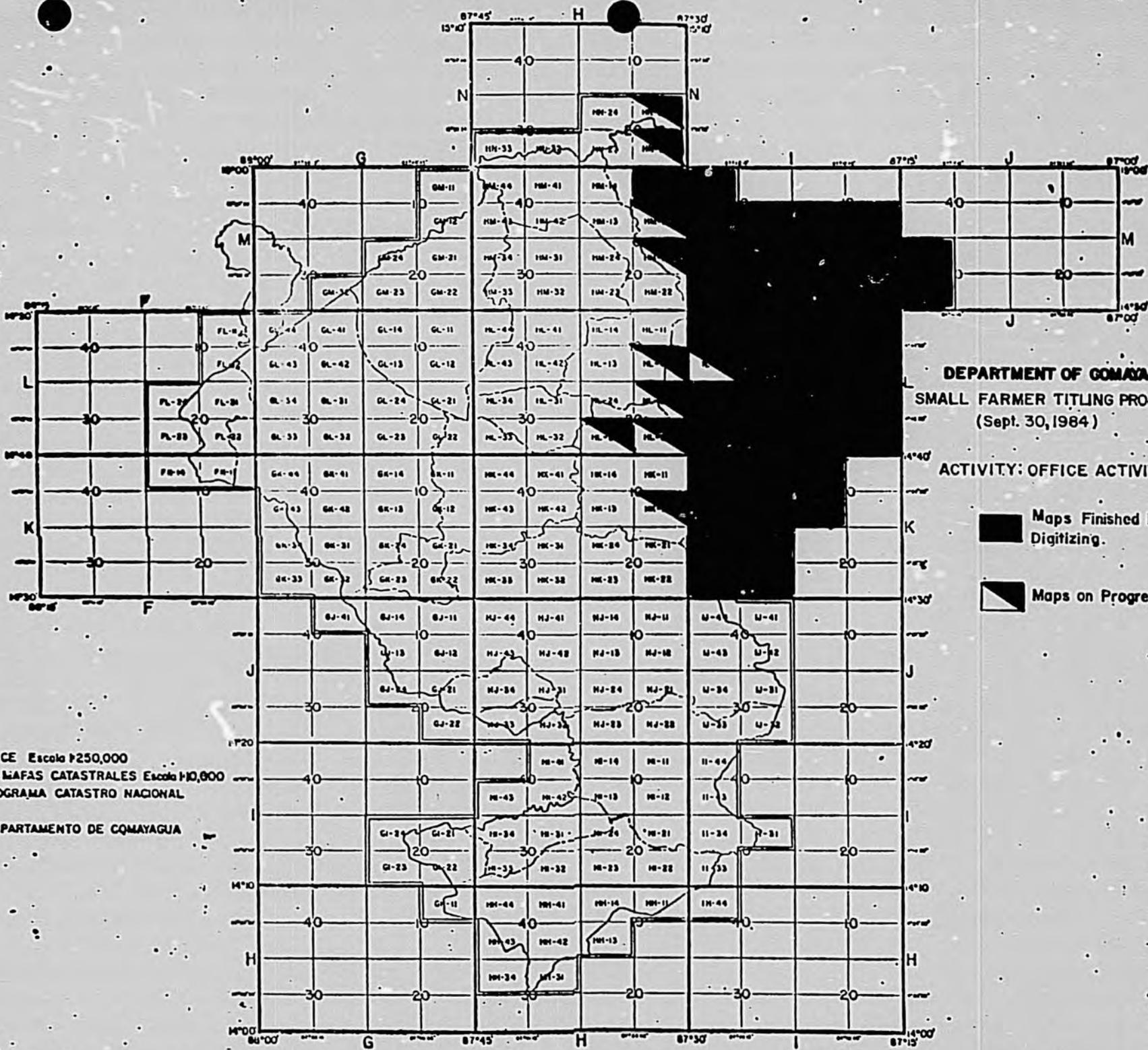
INDICE Escala 1:250,000
 DE MAPAS CATASTRALES Escala 1:10,000
 PROGRAMA CATASTRO NACIONAL

DEPARTAMENTO DE COMAYAGUA



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ANNEX II
OFFICE ACTIVITIES PROGRESS
CHART



DEPARTMENT OF COMAYAGUA
SMALL FARMER TITLING PROJECT
 (Sept. 30, 1984)

ACTIVITY: OFFICE ACTIVITIES

- Maps Finished For Digitizing.
- Maps on Progress

INDICE Escala 1:250,000
 DE MAFAS CATASTRALES Escala 1:10,000
 PROGRAMA CATASTRO NACIONAL

DEPARTAMENTO DE COMAYAGUA

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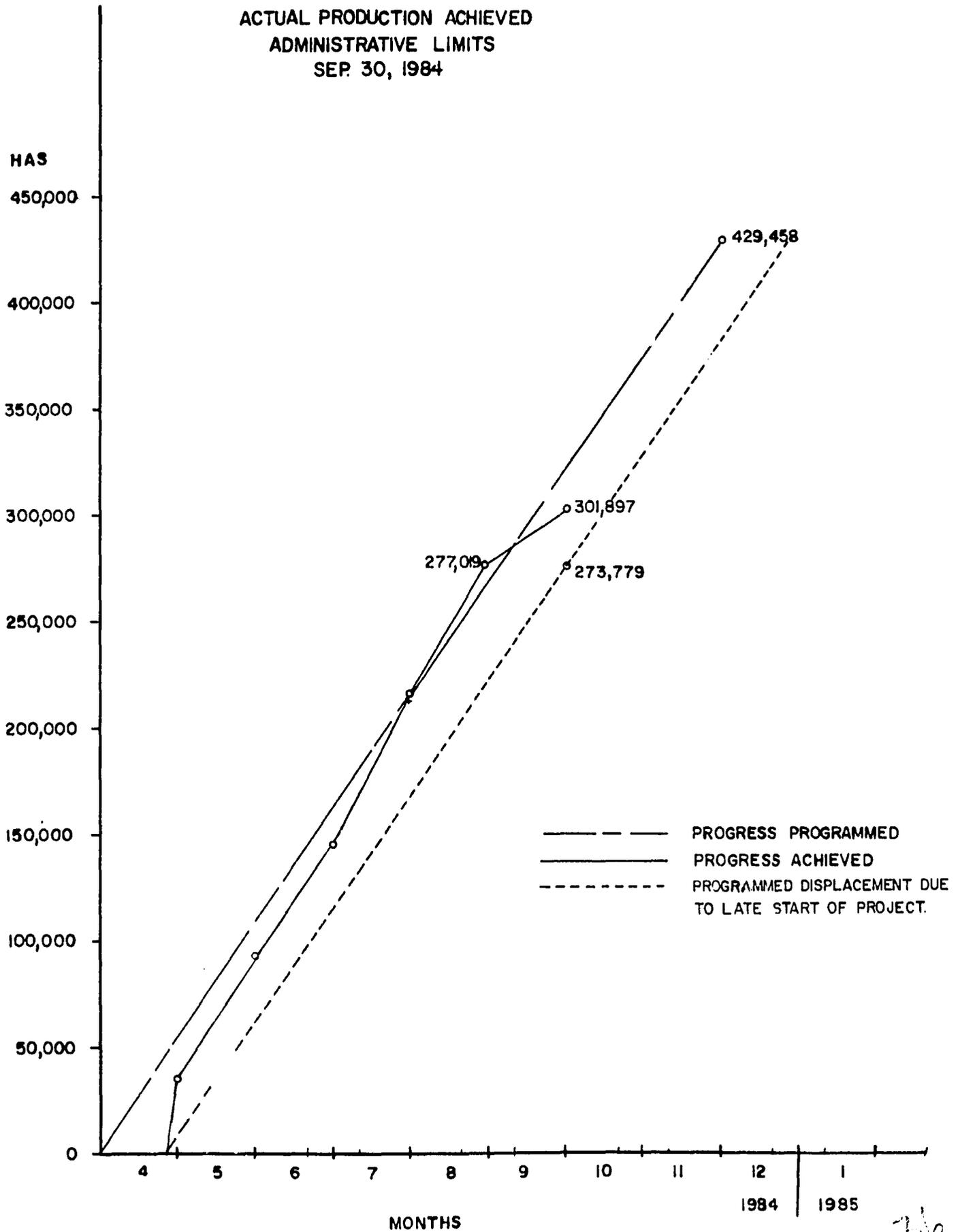
ANNEX III

GRAPHICS SHOWING PROGRESS ACHIEVED
VS PROGRESS PROGRAMMED ON DIFFERENT
FIELD PROJECT ACTIVITIES

ANNEX IV

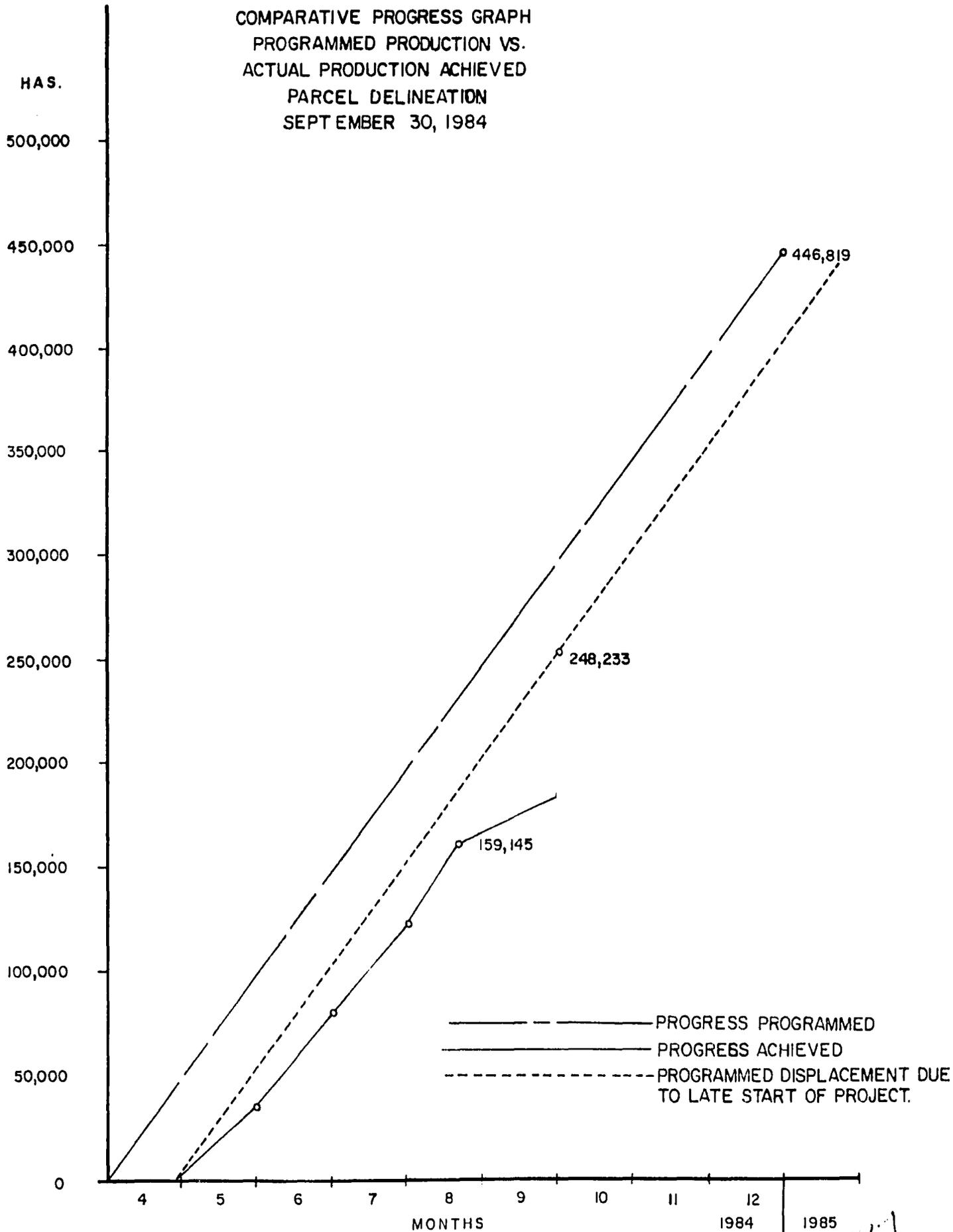
CONSOLIDATED PRODUCTION REPORT ON
FIELD DELINEATION ACTIVITIES

DEPARTMENT OF COMAYAGUA
 COMPARATIVE PROGRESS GRAPH
 PROGRAMMED PRODUCTION VS.
 ACTUAL PRODUCTION ACHIEVED
 ADMINISTRATIVE LIMITS
 SEP. 30, 1984



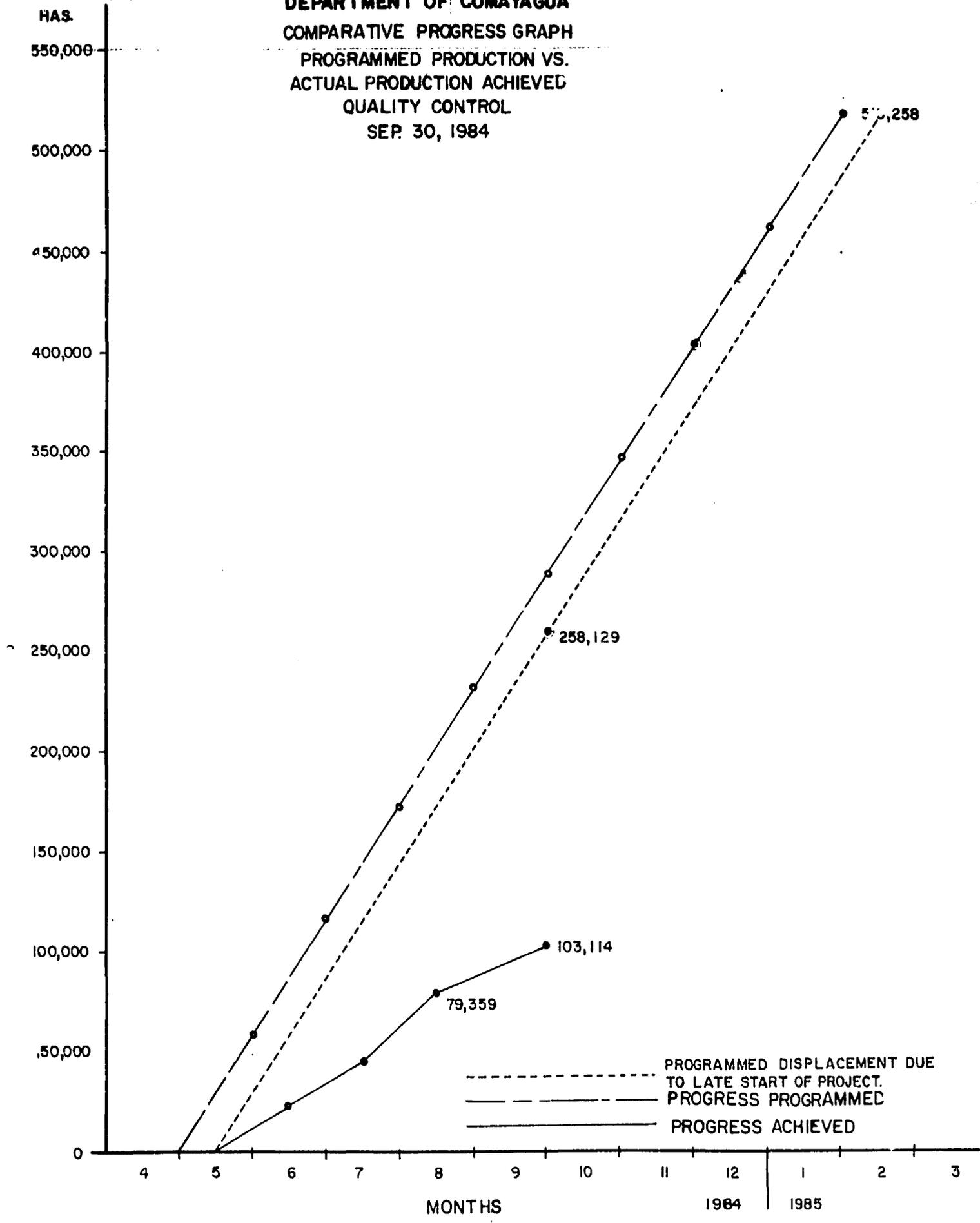
3/0

DEPARTMENT OF COMAYAGUA
COMPARATIVE PROGRESS GRAPH
PROGRAMMED PRODUCTION VS.
ACTUAL PRODUCTION ACHIEVED
PARCEL DELINEATION
SEPTEMBER 30, 1984



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DEPARTMENT OF COMAYAGUA
 COMPARATIVE PROGRESS GRAPH
 PROGRAMMED PRODUCTION VS.
 ACTUAL PRODUCTION ACHIEVED
 QUALITY CONTROL
 SEP. 30, 1984



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EXECUTIVE DIRECTORATE OF CADASTRE
ENGINEERING DEPARTMENT

SMALL FARMER TITLING PROJECT
DEPARTMENT OF COMAYAGUA

FIELD DELINEATION ACTIVITIES ACCUMULATED PROGRESS
(September 30, 1984)

ACTIVITY	UNIT	TOTAL PROGRAM-MED	ACCUMULATED PROGRESS LAST MONTH	PROGRESS THIS MONTH (SEPT.)	TOTAL ACCUMULATED PROGRESS (END OF PERIOD)	WORK PENDING (END OF PERIOD)
PARCEL DELINEATION	Hectárea	446,819	159,145 (35.6%)	25,850 (5.8%)	184,995 (41.4%)	261,824 (58.6%)
CADASTRAL CARDS (Fichas Catastrales)	Parcel	24,000	13,911 (58%)	2,799 (11.7%)	16,710 (69.7%)	7,290 (30.3%)
DELINEATION OF ADMINISTRATIVE LIMITS	Hectárea	429,458	281,377 (65.5%)	20,520 (4.8%)	301,897 (70.3%)	127,561 (29.7%)
QUALITY CONTROL (Parcels and Cadastral Cards)	Hectárea	516,258	79,359 (15.4%)	23,755 (4.6%)	103,114 (20%)	413,144 (80%)

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