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Pennsylvania State U., Michigan State U., and Texas A & M U.

University Consortium in Uruguay



PP-AAK-532

Contract AID/La-722

Report No 1

A Short-Term Consultant Report to the
Ministry of Livestock and Agriculture in Uruguay
in

OBJECTIVES AND PROCEDURES IN ECONOMIC ANALYSIS
(USAID/MLA Development Planning and Administration Project)

Dr. Clive Harston and Dr. Ray Billingsley

Texas A & M University

Feb. 1, 1973 - March 1, 1973.

Stephens

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End of Tour Report

Dr. Clive R. Harston and Dr. Ray Billingsley

Texas A & M University

U. S. AID/Penn. State University Project No

February 1 to March 1, 1973

Montevideo Uruguay. -

The objectives of the short term consultants were to review the objectives and procedures of the economic planning project activated by U. S. /AID and the Ministry of Agriculture of Uruguay. In addition assistance was provided to the long-term consultant, Dr. James Mc Grann in establishing appropriate contacts, reviewing sources of information, encountering resource people and defining the scope and limitations of the project.

From the first hand experience in the country and personal acquaintances the consultants have gained a perspective and valuable knowledge that will facilitate their performance of a "back-stopping" function for Dr. Mc Grann.

Discussions were held with William Rhoads, AID Representative, Thomas Stephen AID Rural Development Officer, Juan Crespi, AID Rural Development, Chester W. Hitz, Consortium Leader, Jorge Elena Director of CPYPA, Miguel Cetrángolo CPYPA, Alfonso Carluccio, OPYPA, Alberto Bension, C. P. P. Cdr. Percyra, C. P. P. and Gabriel Sitjar, O. P. P. From these discussions a general agreement was reached and the consultants prepared the project statement attached here to.

A list of agencies and sources of statistical and economic information was prepared for the long-term consultant's guidance at the inception of the project. The attached listing is not to be viewed as a complete list of agencies nor as a

complete bibliography but only as a list that came to the attention of the consultants during their short tour of duty.

A brief account of interviews conducted by the consultants is included for the purpose of providing a basis for further contacts. A listing of resource people with experience or training in agricultural economies in Uruguay is included.

These people can serve as colleagues, advisors and collaborators as circumstances permit.

The environment for a successful pursuit of the objectives of the Economic Planning Project is favorable. The organizations involved agree to the need and the objectives. Support has been pledged by all contracting agencies and the necessary facilities and budget are anticipated. As with all research or action programs there are limitations and constraints. The time provided for the initial contract most likely will need to be extended if the ambitious objectives are to be accomplished. The number of technicians assigned to the project to assist, and collaborate with the long-term consultant will be directly and positively correlated with the scope of accomplishments.

Inasmuch as the early stages of the project requires searching for accurate production coefficients, costs, prices, production systems, constrains and other technical information some travel will be required to the experiment stations and production areas. Adequate transportation and technical assistance support will facilitate this stage of project development.

At the beginning of this project no provisions have been made for a vehicle for the long-term consultant, but there is reason to be confident that every effort will be made to solve the problem.

The computer facilities in Montevideo for quantitative data processing is favorable. (See list attached). However, the availability of trained computer technicians to handle research data and the availability of appropriate computer soft-ware are likely to be serious limiting factors.

The Engineering Faculty has the largest and most complete computer facility in the country. They have an IBM 360/44 computer with Fortran IV Level H compiler which can use many of the programs available at TAMU.

The next best facility is at the Banco de la República where they have a 360/40.

Both of these computers are available for use by CPYPA and C. P. P.

It is not possible however, to run MPS/360 programs on the computers at the Engineering Faculty or the Banco de la República.

Two alternatives for computer services are to use the computers at Texas A & M University and the other is to use computers in Buenos Aires. Personal contacts at the Graduate School in Castelar where Professors and students have working relationships with computer laboratories as well as at Texas makes these alternatives feasible. At the beginning of the project it may be wise to send data to T. A. M. U. to expedite data processing but it is strongly recommended that capability be developed within the country to assure continuance in the future.

Both CPYPA and the Plan Agropecuario have administrative arrangements established for the use of the computer laboratory at the Banco de la República.

Although office space and secretarial help have not yet been provided, expectations are that within a few weeks the needs will be met. An office located within C. P. P. will facilitate collaboration with personnel from both CPP and OPYPA because of the proximity of the two offices.

A close working relationships will need to be maintained with key people in the Plan Agropecuario, La Estanzuela, the Experiment Station at Paysandú and other locations, and the Banco de la República. Contacts with CREA groups and innovative producers in the various production zones will be beneficial for the purpose of identifying the elements in producer decision making and the constraints they face.

A program with severe limitations on the number of personnel directly involved can broaden its base of technical competence through informal contacts and consultations with technical people in related programs both within and outside of the country. The short-term consultants will be available for continued technical assistance at the University or by means of short term visits to Uruguay. The proposed economist who is to work with the production technicians in the Consortium parallel project can benefit from and can provide assistance to the economist in the program planning project.

Inasmuch as the same Universities are involved in an educational project at the Graduate School at Castelar and effort should be made to explore the opportunities for joint use of both short-run and long-term consultants in projects in both countries. The special "ad-hoc" seminar conducted by Dr. Warren Vincent from Michigan State in Montevideo on Feb. 26 is a good example. Dr. Vincent was on a short-term assignment at the Graduate School at Castelar and constructed a farm management gaming model for student instructional purposes. Dr. Vincent was invited to discuss his model as a useful tool for farm decision making analysis. Those attending the seminar included the following:

William Rhoads, AID Representative, Thomas Stephens, AID Rural Development Office, Juan C. Crespi, AID Rural Development Office, Jorge Elena, Director

OPYPA, Carlos Carluccio, CPYPA, Miguel Cetrángolo, CPYPA, Roderick Van Oven, Economist, Plan Agropecuario, John Steele, Consortium leader, Argentine, James Mc Grann, Texas A & M University, Ray Billingsley, Texas A & M University, Clive Harston, Texas A & M University.

A program designed to increase the planning capacity of technicians must include a continuing academic training program as well as "on the job" training aspects. It is commendable that several people have been selected and budgeted with scholarships to pursue the M. S. degree at foreign Universities. A preliminary review of these plans brought forth some observations that may be worthing of review. Because the number of trained agricultural economists in Uruguay is critically low and the potential contributions they could make are of critical importance it is recommended that a stepped up training program be considered. Training should be at more than just two Universities. Because of the proximity, the outstanding staff, the similarity of agricultural problems and the opportunity for thesis development on Uruguayan problems, the Graduate School at Castelar should be given increased emphasis.

The good working relationships with the Universities involved in the consortium will work to the advantage of students doing graduate work at those Universities, especially in regard to thesis development on Uruguayan problems. It is feasible for students to complete their course work on the campus at Texas A & M University and return to Uruguay to accomplish their thesis research under the direction of the University personnel in Uruguay. Thus minimizing time away from the country and maximizing the utility of the thesis research. Based on preliminary but perhaps sufficient observations a recommendation that agricultural marketing research be expanded as well as the addition of an agricultural economist

to the production consultant team. A number of excellent reports on the marketing of major crops have been prepared by special consultants in recent years, but their reports must be considered as the first and not final step toward an improved marketing system.

The economic benefits of improved production techniques as determined from well advised micro-analysis can be lost in the market in a single moment if improved marketing systems and techniques are not developed simultaneously with production technology.

SOME COMPUTERS AVAILABLE IN MONTEVIDEO

<u>MODEL</u>	<u>USER</u>	<u>MEMORY SIZE</u>
360/44 Disc 2314	Facultad de Ingenieria	128 K.
360/40 3 Disc Units	Banco República	128 K.
360/40	IBM - 4 X2311 units.	128 K.
360/40	Banco de Prev. Social	64 K.
360/20	Intendencia Municipal	16 K.
360/30	Banco Mercantil (Banco Central ?)	
Bull	UTE	?
360/? 1401	ANCAP	large
360/?	Sudamtex	?
360/?	Campomar	?
360/25	Alpargatas Banco Comercial	?
360/25 4 tapes, 2 Discs.	Tax Office	64 K.

DEVELOPMENT PLANNING AND ADMINISTRATIVE-URUGUAY AID/W
AGREEMENT WITH PENNSYLVANIA STATE UNIVERSITY 1972 (PRO-AG70-6)

(TEXAS A & M UNIVERSITY SUB-CONTRACT)

PROJECT STATEMENT - Feb. 1973

STATEMENT OF PROBLEM:

The Government of Uruguay has established objectives and goals to move the country into an expansion pattern. To do this requires a continuing capability to evaluate alternative governmental policies and to program decisions into official actions which will bring about economic growth. A well developed and empirically supported set of planning models with input-output relationships for the important agricultural commodities are essential if decision makers are to recognize the impact of specific action programs.

Output expanding technology and management techniques important to Agricultural producers have not been adopted at a rate consistent with the growth objectives in Uruguay. Production has shown surprising stagnation during the last 20 years. The strong interrelationship between agricultural development and national development is evidenced by the fact that 90-95% of exports are farm products. Economic growth in Uruguay is tied to imports because of the imbalance of natural resources for industrial development. Since imports are a function of exports economic development depends upon expanded agricultural production. The rate of growth must be consistent with internal demand expansion, the export demand situation and the availability of production resources such as capital, technology, management ability, fertilizers etc.

Production incentives relate to technical production information available, a knowledge of alternative production and marketing practices, improved prices, reduction of risk and uncertainties and changes in resources available. Each policy decision is relevant only as it is compared with alternatives.

Under a scarce resource situation, a policy decision must be considered in terms of being the most effective and beneficial among several choices. The economic evaluation of production coefficients under alternative cost and price situations can provide the basic information for action decisions.

Without question the Agricultural sector's growth is the principal element in the total economic growth of the country. This fact can be demonstrated by economic models that relate changes in the agricultural sector to the national economic indicators. Improved production incentives effected by wise government programs will be reflected in the total economy and can be quantified. On the other hand ill advised programs can be analyzed in terms of its negative impact on agriculture and the total economy.

The administrator of the official planning and budgeting agencies in the G. C. U. see clearly the need for improving the capabilities of the technicians in their offices but recognize the time element in training programs. For this reason an advisor from the exterior for the short-run would facilitate the implementation of upgraded procedures immediately while the long-run training program proceeds.

The census of Agriculture completed each 5 years provides basic data that is fully tabulated and analyzed. Aggregate Statistics for the country based on the national census, and special studies are useful for descriptive accounts of what has happened in the past. However, economic data necessary for the

analysis of production decision making at the firm level has not been assembled, and in most cases has not been generated. Production input-output coefficients related to prices of inputs and products are critically essential for evaluations of the action program impact on production. Identification of constraints and restrictions for the alternative combinations of production factors is basic for technical assistance in credit programs and project development.

Basic data for producing firms is not only essential for the micro-economic analysis but provides the elements for the macro economic models that bring policy issues into focus and economic rationality. The operation of both the macro and micro models will improve the understanding of the impact of action programs and permit a rational selection among alternative policies.

(Appendix A)

OBJECTIVES:

- 1) To increase the economic planning input of the Ministry of Agriculture's Planning Office and the National Planning Office in the decision making process for the agricultural sector by assisting in developing a permanent analytical and communicative capability. This will enable the continuing use of practical and theoretical economic analytical concepts necessary to develop policy issues and recommendations for the Government of Uruguay.
- 2) To develop production and planning guidelines by means of advanced and appropriate economic model analysis, for the major agricultural production enterprises in Uruguay, to be used in planning and evaluating both at the micro and macro economic levels. The guidelines will represent the typical production systems found in Uruguay by size of operation, geographic location and systems using alternative technologies.
- 3) To develop a macro analytical model to evaluate alternative government policies with respect to such things as: 1) The market impact of increased agricultural production, 2) The effects on farm total and net income, 3) The change in foreign exchange earnings, 4) Productivity of capital in alternative uses, 5) Producer receptivity and adaption rates for technology.

PROCEDURE:

- 1) Review, assemble and compile data required for economic analysis of alternative production systems for the major agricultural products in the major production zones (Beef cattle, swine, poultry, cereal crops, sunflower, rice, dairy cattle, sugar beets, potatoes and fruit). Determine

typical resource level complexes appropriate for each type of farming area.

- a) Statistical data provided by the Ag. census, special studies and surveys will be a basic source of information.
 - b) Interviews with knowledgeable people at experiment stations, with credit advisors, producers, specialists and key trade and government people will be a source of information on production possibilities, applicable technology, and resource constraints.
- 2) Partial budgets will be developed for both traditional and modern agricultural systems, by size of farm using adequate capital and high level technology assumptions. The traditional budgets will be used to evaluate the efficiency with which agricultural and human resources are being used in Uruguayan agriculture at the firm level. The modern budgets using high level technology will be used to determine the optimum size and capital requirements for agricultural firms to produce desired levels of income for farm families and the minimum cost output organization for using agricultural resources. If feasible a budget generator will be used and budget data will be stored on computer disks.
- 3) Budgeting or static linear programming models will be used to evaluate production constraints and the efficiency with which agricultural resources are used, to determine the optimum allocation of resources, to determine the size and capital requirements for selected levels of farm income for traditional and for advance technology. A dynamic or multi-period model will be made for an area where capital investment for pasture improvement and improved practices for livestock production are important.

- 4) The macro model objective will be accomplished through the use of appropriate mathematical programming techniques (such as separable programming) to evaluate the macro economic effects of alternative government policies with respect to prices, subsidies, taxes and exportation, taking into account the impacts on market prices, farm income, capital requirements and foreign exchange earnings. The data needed for this analysis includes the budgets used above, the level of agricultural production for each product and the appropriate price elasticities. A dynamic evaluation of the results of this static model using various macro economic and demographic policy variable assumptions can be made by using simulation.
- 5) Through contacts with and information from Graduate Colleges at Penn. State University, Texas A & M. University, Michigan State University, Escuela Para Graduados en Ciencias Agropecuarias en Argentina and other universities and agencies, potential Becarios will be provided with information useful for their plans for advanced training.
- 6) The objectives of this project will be carried out through collaborative efforts between technicians of OPYPA, O. P. P. and Texas A & M University during a period of time and with funds agreed to by USAID, OPYPA, O. P. P. and TAMU, through their appropriate administrative instruments.

Appendix A

PUBLICATION POSSIBILITIES

1) Production and Planning Guidelines for Uruguay. -

This publication could consist primarily of a short description of the input-output budgets associated with each type of typical agricultural enterprise in the major types of farming areas.

2) Optimum Farm Organization and Resource Requirements for Specified Farm Income Levels in Uruguay. -

This publication would evaluate the capital and land requirements and production constraints using typical and advanced levels of technology for the principle types of agricultural production systems in Uruguay.

3) The Impact of Alternative Government Policies on Agriculture with Respect to Farm Income, Market Impact and Foreign Exchange Earnings.

This publication would report the results of the macro economic analysis and would evaluate various alternative government policies with respect to market impact and foreign exchange earnings.

4) Foreign Exchange Projections for Uruguay Based on Various Capital Expenditure Levels, Domestic Consumption Levels, Rates of Technological Change and Rates of Population Growth.

This publication would report on the macro economic dynamic aspects of alternative assumptions and government policies. The previous work is all cast in the framework of a static analysis and decisions or actions taken (or not taken) frequently have economic consequences for a considerable period. This publication would evaluate these economic consequences by simulating over time various alternative situations.

Partial List of Sources of Economic Information Relating to Uruguay.

This list is not intended to be a complete bibliography nor complete list of Agencies but a Partial list prepared to C.R. Harston and Ray Billingsley having a short tour in Uruguay, for the specific use of James Mc Grann.

I. Ministerio de Ganadería y Agricultura, M. G. A.

- 1) Programas Presupuestarios del Ministerio de Ganadería y Agricultura para el período 1968-1972 (New program soon to be approved).
- 2) Informe del Gobierno del Uruguay - Conferencia Regional de la FAO Para América Latina. (Dec. 1968)

A. OPYPA. Oficina de Programación y Política Agropecuaria.

- 1) Objetivos y Metas del Sector Agropecuario.
Plan de desarrollo Agropecuario. Período 1973-77. Agosto de 1972.
- 2) Lineamiento de Política Agropecuaria.
Plan de desarrollo agropecuario. Período 1973-77. Enero de 1973.
- 3) Evaluación del Sector Agropecuario.
Serie de Informes de Coyuntura. - (Varias fechas) Jan. 1970-Oct. 1971.
- 4) Estadísticas Básicas del Sector Agropecuario. -
Junio 1970.
- 5) Crédito Agropecuario en el Uruguay. -
1966
- 6) Informe anual de actividades.
(Memo) Dec. 1971.
- 7) Plan de Operaciones.
(Mimeo plans for each semester)
Marzo de 1970.

- 8) Estudio Económico y Social de la Agricultura en el Uruguay. -
Tomo 1 y 2 1967.
- 9) Marketing Uruguayan Deciduous Fruit - Part I & II By J. W. Hagen Sept. 1972
I. D. S. (Also in Spanish).
- 10) Production and Marketing of Uruguayan Poultry, Nov. 1971 W-E. Cathcart I. D. S.
- 11) Prospects for Producing and Exporting Uruguayan Dairy Products Dec. 1971
J. D. Goodwin, I. D. S.
- 12) Opportunity for Export of Uruguayan Vegetables. March 1972
- 13) Expanding Export Markets. I. D. S. 1972
- 14) Proyectos de Leyes de Promoción Agropecuaria. 1967
- 15) Plan de Desarrollo Agropecuario. -
Tomo I y II 1966. -
- 16) (2) Los Suelos del Uruguay. -
Su uso y manejo
- 17) (3) Reestructuración y Reorganización Administrativa del Ministerio de Ganadería
y Agricultura, 1967.
- 18) Forestación en el Uruguay. - 1966
- 19) Programa de Producción Pecuaria. 1966
- 20) El Cultivo De la Soja en el Uruguay. - 1972
- 21) Situación y Perspectiva de la Producción y el Comercio de Cereales en el
Uruguay. - 1969.
- 22) Proyecto de Desarrollo Cítrico. - Oct. 1971
- 23) " " " Ganadería. -
- 24) " " " Girasol. -

- B. Dirección de Economía Agraria.
- 1) Departamento de Estadística
División Censos y Encuestas.
 - 1). - Censo General Agropecuario. -
1951, 1956, 1961, (1970), 1970 census report not yet published but data is available.
 - 2). - Estimación de Area sembrada. -
(Adjusted estimates at 3 different times of the year based on opinions of people in the campus and in the trade).
- C. Centro de Investigaciones Agrícolas. - A. Boerger Estanzuela.
1. A large number of publications by production technicians dealing with experimental work carried out at the Exp. Station. (Seventeen such reports were obtained).
- D. Centro de Investigaciones Agrícolas y Facultad de Agronomía-Paysandú.
- 1) Reports of Experimental work and publications for class room instruction. (about one dozen such reports were obtained).
- E. Comisión Honoraria del Plan Agropecuario. -
- 1) El Plan Agropecuario. - Enero 1972
 - 2) Appraisal of Fourth Livestock Development Project - Uruguay Feb. 1972
Feb. 1972. I B for R & D.
 - 3) Fifth Livestock Development Project. - May 1971. - Proposal
 - 4) Registros de Establecimientos Agropecuarios.
 - 5) Situación Económica y Social del Uruguay. Rural, Economía Humana.
- F. Comisión Honoraria del Plan Granjero.

- G. Comisión Honoraria del Plan Citrícola
- H. Comisión Honoraria de Mejoramiento Ovino
- I. Comisión Sectorial Avícola
- J. Comisión Sectorial Porcina.
- K. Grupo Asesor de Trigo.
- L. Dirección de Abastecimiento y Comercialización.
 - 2. Oficina de Planeamiento y Programación.
 - 1) Bases para un Programa Operativo a corto y mediano plazo. Oct. 1969.
 - 2) Trigo, Producción, Comercialización, Transporte de la Zafra Triguera.
1968/1969 - 1968
 - 3. Banco Central. Depto. de Investigaciones Económicas.
 - 1) Cuentas Nacionales, 1965
 - 2) Producto E Ingresos Nacionales, 1971.
 - 3) Reseña de la actividad Económica Financiera, Primer Semestre del año 1972
 - 4) Indicadores de la Actividad Económico- Financiera, Enero 1973
 - 4. Banco de la República.
 - 5. Instituto Nacional de Carnes- INAC.
 - 1) Estadísticas Exportación. (Monthly Release).
 - 2) Estadísticas de Producción. (Monthly Release).
 - 3) Current Price Reports.
 - 6. Dirección General de Estadística y Censo.
 - 1) General Census conducted in about 1908, and 1963
 - 7. Asociación Rural del Uruguay. -
 - 8. Cámara Mercantil de Productos del País.

9. Comisión Honoraria del Azúcar.
10. Dirección General de Comercio Exterior.
11. Centros Cooperativos del Uruguay.
12. Secretariado Uruguayo de la lana.
13. Facultad de Economía.
 - 1) Estadísticas Básicas de Uruguay.
Instituto de Economía. - Dec. 1969
 - 2) El Comercio Exportador del Uruguay. - 1962-1968 Tomo I y Tomo II. -
Instituto de Economía. Feb. 1972
 - 3) El Proceso Económico del Uruguay
Instituto de Economía. 1971 (Libro).
14. Fiat.
 - 1) Uruguay, Síntesis Económica y Financiera. Agost 1971
15. Fundación Ford.
 - 1) The Agricultural Development of Uruguay, 1967, Russell H. Brannon.
16. Inter- American Development Bank.
 - 1) Uruguay's Agricultural Sectors, Priorities for Policies Investment Programs and Projects.
Paper No 9 Special Studies Dev. July 1970 By Fletcher and Merrill.
17. O. A. S. and IICA. -
 - 1) Inventory of Information Basic to the Planning of Agric. Development in Latin America. - Pan Am. Union.
18. COMCORDE - Comisión Coordinadora Para el Desarrollo Económico.
 - 1) Producción y Comercialización de Citrus. 1969

- 2) Trigo. Aspectos de su Producción y comercialización. 1968
- 3) Proyecto Para la Constitución del Mercado a Terminos Para Cereales y Oleaginosas. - 1966
- 4) Diversificación de la Producción de Carnes- Estudio Preliminar. 1971
 - Tomo I. - Industria Avícola
 - Tomo II. - Industria Porcina
 - Tomo III. - Otras Carnes Industriales.
19. USAID- Consultant Reports on a variety of topics on file in Rural Development Office, American Embassy.
20. Asociación de Bancos del Uruguay. -
 - 1) Resumen De Los Principales Aspectos De La Actividad Económica del Uruguay en el Año 1969. - 1970
21. U. S. D. A.
 - 1) Uruguay's Livestock and Meat Industry. 7 AS - M - 186 May 1967
22. Cámara Nacional de Comercio.
 - 1) Posición de la Cámara Nacional de Comercio en Relación Con Las Medidas Necesarias que Requiere Un Plan de Política Económica a Mediano y Largo Plazo. Julio 1971

Interview with Roderick Von Cven, Economic advisor to the
"Plan Agropecuario". World Bank loan program now in operation. (International
Bank for Reconstruction and Development).

Office: 11th. floor Victoria Plaza Hotel.

- 1) Van Cven has a Ph. D. in Ag. Econ. from Göttingen, Germany. He was in Argentina obtaining data for his thesis.
- 2) He is interested in economic analysis of loan participant farms and has obtained useful data. His data does not come from representative statistical samples, but from respondents who were willing to cooperate. He said randomly selected samples are not useful for studies of this type.
- 3) He welcomed collaboration with Mc Grann and agreed to let him use data the Plan Agropecuario has developed.
- 4) He has about 400 livestock producers who are keeping records on a voluntary basis.
- 5) There are over 5.000 farmers who subscribed to World Bank loan. He took a 10% sample but got only 234 usable returns. These responses provide useful data for further analysis and arriving at production coefficients.
- 6) He obtained 800 returns from a questionnaire sent to all loan participants- but it was not geographically representative because more than $\frac{1}{2}$ came from one zone. (They have selected 13 ecological zones).
- 7) Has a good working knowledge of Computers and their uses.
Uses Bank of Republic computers.
360-50 -with 124 K with 3 discs unites IBM.
- 8) Most likely Von Cven will be the best source of economic information for

- farms and ranches information in regard to:
- 1) Production coefficients for selected Technical inputs and management.
 - 2) Returns and costs of production.
 - 3) Capital flow, and credit instruments.

Interview with the Director of the Agricultural Census.

-Dirección de Economía Agraria- M. G. A.

- 1) The Ag. Census is conducted each 5 year's but the 1970 census covered only 4 years in order that the timing of the census will coincide with the F.A.O. statistical period.
- 2) The Census office conducted a special survey of livestock in 1972 but it is for internal use only. It showed a decline in sheep but some increase in cattle. The sample is believed to be good.
- 3) The census is conducted by Policemen in each Police District in each Department. There are 3 divisions:

1. Departments
2. Police Districts
3. Division of Police Districts.

Details compiled and totaled for these 3 groups plus the national totals by the I.B.M. computer offices in Montevideo under contract. Superficial checking in the field then the Census office checks. Sometimes they must send the questionnaire back to the police for correction.

The questionnaire does not ask for prices, costs, incomes, how marketed nor anything about purchased inputs. It records numbers, acres of production and inventory of selected machinery and farm improvements.

- 4) The attempt in 1961 to conduct a survey to determine the error of the census was cancelled because of objection to some economic questions that were added.

- 5). Each year they prepare special reports about 3 times a year to show changes taking place. In each Department there are employees of the M. G. A. who report, then the Census office checks with the trade and other key people to check the opinions of what changes are occurring.
- 6) The census appears to make a fairly complete contact with all farms. The classification by tenancy size, type of farm and such items is good. The numbers and quantity data may be quite satisfactory or at least the comparisons between census years. Most policemen who take the census have done it before, so there is consistency.
- 7) The 1970 census is at printers. Data is available through approval at M. G. A.

Interview with Mr. E. S. Skipp PASA Tax Specialist.

- 1) Nature of Tax on Agriculture.
 - a) Property tax at fairly low level to support local Government, with inflation the amount paid is continually declining in real terms.
 - b) Tax on productivity of land for federal revenue yield only a small sum to the Treasury because only a position (1/6) of the farmers register and pay the tax. Taxes paid on exports can be deducted from tax due, there is no effective tax audit system, and it does not apply to farms with less than 200 hectares.
 - c) Some sales tax on food items for municipal financing, but not burdensome.
 - d) Tax on exports is the only effectively collected tax for farmers.
 - e) Income taxes are not burdensome because farm incomes are low, tax evasion is high among those with incomes.
- 2) Taxes on the relatively few large industrial firms is burdensomely high and increases would reduce investments and employment.
- 3) Tax returns are not audited effectively. Change is retarded because Government officials often have personal motives for delaying tax reform.
- 4) Total tax collections fall far short of Government needs to cover the exorbitant costs of their social programs. The Government is forced to seek credit externally and internally and to print money, hence the rapid inflation.

Interview with Sr. Granato, IBM programming specialist.

Dr. Von Oven, Dr. Billingsley, Dr. Mc Gram and Alfonso Carluccio discussed the types of computer facilities in Montevideo, their capacities, characteristics and availability. Mr. Granato is well informed, and helpful. An excellent reference for future assistance. He offered to investigate the possibilities of expanding IBM service as specific requests are made.

Interview with Sr. Alburquerque - Director de Investigaciones-
(met in the Embassy) - Ministerio de Ganaderia y Agricultura.

1) There are 5 experiment stations in Uruguay:

- | | |
|-------------------|-----------------------|
| a) La Estanzuela | Livestock and Pasture |
| b) Salto | Citrus |
| c) Las Brujas | Fruit and Vegetables |
| d) Treinta y Tres | New |
| e) Tacuarembó | New |

La Estanzuela station is the oldest and most developed, while 3 of the others are new with very little research results.

- 2) They have started some regional groups of procedures (livestock only), who carry out some experimental and demonstration work in collaboration with the technicians of the Exp. Stations, new and untested at this point as to their effectiveness.
- 3) Extension service is not in operation. It was instigated a number of years ago at La Estanzuela but fell into discredit and was abolished.
- 4) The training program at La Estanzuela for Graduate programs in Ag. Sc. was discontinued a few years ago.
- 5) There are only two agricultural economists at the experiment stations. The plan was to develop the production technician staff first and at some future time add economists. It was felt that the economist would have nothing to do until the research (production) produced data for the economists to work with.

- 6) The Director of Investigations comes under the M. G. A.
The Director, Mr. Albuquerque, has an M. S. in Range Management on some joint livestock-range program for the U. S. (Virginia may be), competent and influential.
- 7) Enthusiasm for the economic planning project was evidenced and a pledge of assistance was given.

Seminar with the Faculty of Agricultural Economics in the Graduate School at Castelar. - Dr. Martin Piñeyro, coordinator, Dr. John Steele, Dr. Héctor Barreiro, Dr. Gustavo Norvis, Dr. Juan Carlos Martínez and Dr. Warren Vincent.

- 1) Only one student from Uruguay is currently enrolled -Lando from the Colonization Dept. in Montevideo. Students from Uruguay might have some problems of appropriate prerequisite courses without disrupting the normal course sequences.
- 2) Competition in the school is reasonably strong and students who have been out of school for a number of years generally find it difficult to keep up.
- 3) Uruguayan students should be able to arrange to use Uruguay basic data for their theses without difficulty. Support for thesis projects is a continuing need.
- 4) Potential collaboration with the faculty and the consultants in Uruguay was discussed. The willingness was evident but the administrative procedure was not so evident.
- 5) Dr. Vincent, a short term consultant from Michigan State Univ. discussed his farm management model and consideration was given to its practical usefulness in the Uruguay project. An informal invitation was extended for him to present a seminar in Montevideo concerning his model. Dr. Steele was invited to come for a conference with Mc Grann.

Account of a short field trip and interviews held. -

Drs. Harston, Billingsley, Mc Grann and Jaime Barceló traveled to La Estanzuela and discussed research programs agricultural problems of the area and established a working relationship with a number of technicians of the experiment station. Interviews were held with Aldo Maggi, Carlos Seanise, livestock specialist, Eduardo Seigal, pasture, Ing. De Lucfa, pasture, and Ing. Castro wheat specialist.

At Tarariras we met Ing. Alberto André and Ing. O'Brian of the Plan Agropecuario who discussed the technology in the area, the operation of the credit programs and then presented us to two progressive farmers in the area. These producers discussed and showed us the improved pastures made possible through credit. An impression of factors involved in decision making at the farm level was gained.

Near Paysandú we visited the Faculty of Agronomy and the research facilities. Our host was Gillermo de Torres, assistant director and we interviewed the following specialists: Jorge Escuder, pasture, Esteban Pizarro, pasture, Mario Azzanini, sheep and Fernando Magdalena, beef cattle. Edgardo Gilles the agricultural economist was on vacation. We met Ing. Eugenio Dubasc, regional director of Plan Agropecuario who introduced us to Dr. Juan José Roure, a veterinarian, producer and member of a CREA group. Dr. Roure took us on an extensive tour of his 1.000 hectare ranch (1.600 cattle) and showed us alternative pasture improvement and cattle management systems. He discussed credit programs, pricing, marketing, record keeping, taxation technology and the activities of his CREA group. He requested that Dr. Mc Grann return and present a seminar on how to improve their accounting methods and make use of such data for national

decision making.

While en route a visit was made to an operating livestock auction. The method of operation, factors affecting prices, costs of selling, types of buyers and general marketing problems were discussed with the Plan Agropecuario specialists in the area who visited the auction with us.

Although the trip was short the area observed limited and the grass, cattle and crops situation abnormally favorable it was beneficial for a good many reasons.

Visit to the Banco Central - Investigaciones Económicas-

Mr. Héctor Roldós (6th floor) Contabilidad Económica,
Sector Agropecuario, was not available.

Mr. Lacurcia visited with us and extended an invitation for us to use their data (unpublished).

The Central Bank has a rather restricted function in providing statistics on the National Accounting level. Their data serves well for National statistics but is not reliable for sector analysis.

The Bank has a Department of Investigaciones Económicas but a limited staff. Their data is mostly obtained from the M.G.A. and specifically the Ag. Census. They conduct no original surveys nor make any spot checks for accuracy of their estimates.

They publish prices at the farm level but arrive at these prices by starting with prices at wholesale in Montevideo, estimating transportation costs, costs of intermediaries and thus deriving the farmer's prices. No surveys have been made to test the accuracy of these estimates. It was not evident that any "weighting" for volumes, place of selling, quality, etc. is being used.

The Central Bank was created as a separate Entity only a few years ago. Formerly they were part of the Banco de la República.

Interviews with Dr. Russ of IICA in Buenos Aires, and Ing. Miguel Rodríguez Zapata and Dr. Emilio Montero, IICA. Montevideo.

- 1) IICA is providing financial and technical support for both the Graduate School at Castelar and the Catholic University in Chile. They are currently negotiating a two year extension of their support to the Castelar Graduate School.
- 2) The Graduate School at Turrialba Costa Rica, is reducing its programs.
- 3) Dr. Hugo Cohn was on vacation at the time of our visit. He will be assigned to work with C. P. Y. P. A. and will be available for collaborative work with Mc Grann .
- 4) Dr. Emilio Montero , is a farm management specialist and will be a source of information and guidance.

Interview with Dr. Darryl Fienup, Ford Foundation,
Buenos Aires. -

- 1) The Ford Foundation has virtually no programs that deal directly with Uruguay.
- 2) The Foundation is providing substantial support to the Graduate School at Castelar in the form of salary support for professors and scholarships for students. It was suggested that Uruguayans compete for the scholarships granted through the Graduate School rather than seek special scholarship programs from Ford Foundation.
- 3) Dr. Hugo Cohn who received his training in Ag. Economics under the P. P. A. program of Ford Foundation has recently accepted a position in Montevideo with IICA. He can be a useful collaborator for Dr. Mc Grann.
- 4) Dr. Fienup made an evaluation recently of all graduate programs being offered in the various South American countries. He evaluated the Graduate School at Castelar and the Catholic University in Chile as having the strongest programs.

Interview with Ing. Lapni, Economic Section, Banco de la República.

- 1) The Banco de la República is the major source of credit for agriculture. Loans are specified as to crop and use. The amount of loan funds available each year is determined by The Minister of Agriculture and the bank officials within the national policy constraints.
- 2) Credit granted has certain aspects of supervised credit programs in that credit use is regulated and controlled. A special study of a supervised credit system was made and there is much interest among bank people.
- 3) The bank provides about 75 technicians throughout the country to evaluate loan requests, assist loan processing, observe credit uses, and advise farmers. About one-half of these people have completed a technical training program. None have graduate training and none have had agric. economic training beyond the offerings in the faculty of agronomy. Annually the Bank conducts a training program for their technicians and the research specialists at La Estanzuela and Paysandú are used as resource people.
- 4) The technicians in the country may be a good source of general information about credit uses and production practices. The central office may be a good source of information about lines of credit. Publications from the Bank may be rather limited in usefulness as a source of basic data.

Identification of Resource People In Uruguay with Agriculture Economic

training and experience:

- 1) Dr. Roderick Von Oven, Agricultural Economist.
Plan Agropecuario.
- 2) Dr. Hugo Cohn, Agricultural Economist.
IICA , O. A. S.
- 3) Mr. Aldo Maggi, Agricultural Economist.
La Estanzuela.
- 4) Mr. Emilio Montero, Agricultural Economist .
IICA , O. A. S.
- 5) Mr. Miguel Cetrángolo, Planning Technician,
OPYPA
- 6) Mr. Jorge Elena, Director
OPYPA
- 7) Mr. Alfonso Carluccio, Planning Technician
OPYPA.
- 8) Mr. D. Pereyra, Planning Technician.
OPP.
- 9) Mr. Edgardo Gilles, Agricultural Economist
Faculty of Agronomy, Paysandú.
- 10) Mr. William Rhoads, AID, Representative.
- 11) Dr. James Fox, Economist AID
- 12) Ing. Laredo- Dept. of Colonization
(currently a student at the Graduate School in Castelar).

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In addition the Agricultural Economic staff at the Graduate School at Castelar can be considered as resource specialists:

- 1) Dr. John Steele
- 2) Dr. Héctor Barreiro
- 3) Dr. Martín Peñeyro
- 4) Dr. Gustavo Morris
- 5) Dr. Juan Carlos Martínez