



*executive committee of
the directing council*

PAN AMERICAN
HEALTH
ORGANIZATION

*working party of
the regional committee*

WORLD
HEALTH
ORGANIZATION



64th Meeting
Washington, D. C.
June-July 1970

Provisional Agenda Item 19

CE64/13 (Eng.)
4 June 1970
ORIGINAL: ENGLISH

III INTER-AMERICAN MEETING, AT THE MINISTERIAL LEVEL, ON FOOT-AND-MOUTH
DISEASE AND ZONOSSES CONTROL

In accordance with Resolution XIX adopted by the Directing Council at the XVII Meeting, the Director convened the III Inter-American Meeting, at the Ministerial Level, on Foot-and-Mouth Disease and Zoonoses Control in Buenos Aires, Argentina, during 14-17 April 1970. Representatives from twenty-seven Member Governments of the Organization participated in the Meeting.

The Director is pleased to present for the consideration of the Executive Committee and transmittal to the XVIII Pan American Sanitary Conference with such recommendations as the Committee may deem appropriate, the attached documentation of the meeting, consisting of:

- Agenda (Annex I)
- Final Report (Annex II)
- Program and Budget for the Pan American Foot-and-Mouth Disease Center, Agenda Item No. 8 (Annex III)
- Report of the Mission on the Importance of Zoonoses Control as an Integral Part of Agriculture and Livestock Development and the Role of the Pan American Zoonoses Center, Agenda Item No. 9, Program and Future Financing of the Pan American Zoonoses Center (Annex IV)

Other documentation consisting of technical papers on the various agenda items are available for study as may be desired.

As will be noted from the Agenda, subjects discussed during the Meeting included foot-and-mouth disease, major zoonoses, food and nutrition, and the significance of these for the health and economies of the countries.

The Final Report contains 21 resolutions relative to food and nutrition policies of the Americas and the need to conduct a multi-sectorial approach to reduce the seriousness and magnitude of malnutrition in these countries. Emphasis was placed on a unified effort to control animal diseases that create protein losses, particularly the zoonoses and foot-and-mouth disease.

Significance of the role of international credit for financing these programs was discussed along with cooperation among international agencies.

The two resolutions having specific budgetary implications are discussed below.

In Resolution VII the Meeting expressed its support of the Pan American Foot-and-Mouth Disease Center. With respect to 1971 the budget considered was identical with that presented for the Center in Official Document No. 98. The Meeting recommended to the XVIII Pan American Sanitary Conference that it approve the budget. It recognized that the provisional draft budget estimates for 1972 reflected activities which are operationally and scientifically sound, and that it would be subject to further study in 1971 by the IV Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control and by the Executive Committee and the Directing Council of the Pan American Health Organization.

In keeping with the request of the II Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control as expressed in Resolution VIII, a study was carried out by a Mission which visited and consulted with fifteen countries of the Americas on the Importance of Zoonoses Control as an Integral Part of Agriculture and Livestock Development and the Role of the Pan American Zoonoses Center. The report of the Mission was presented and approved. (Annex IV)

Following a review and evaluation of the Report, the III Inter-American Meeting passed Resolution II which recommends to the XVIII Meeting of the Pan American Sanitary Conference of the Pan American Health Organization that it approve for 1971 an additional appropriation of \$300,000 to meet the requirements of the Center, presented in the Report of the Mission, (Annex IV), in the understanding that the Ministries of Agriculture of the Member Governments of the Organization will increase their financial support in accordance with the scale of assessment.

AGENDA

(Document RICAZ3/1, Rev. 1)



PAN AMERICAN HEALTH ORGANIZATION



WORLD HEALTH ORGANIZATION

III INTER-AMERICAN MEETING ON FOOT-AND-MOUTH DISEASE AND ZONOSSES CONTROL

BUENOS AIRES, ARGENTINA, 14-17 APRIL 1970

RICAZ3/1, Rev. I, (Eng.)
10 April 1970
ORIGINAL: ENGLISH
SPANISH

DRAFT AGENDA

Document Number

1. Inauguration of the meeting
2. Election of the President and two Vice-Presidents
3. Inaugural Session - Addresses by the Secretary of State for Agriculture and Livestock of the Nation and the Director of the Pan American Sanitary Bureau
4. Approval of agenda and program of sessions RICAZ3/1, Rev. I and RICAZ3/2
5. Bases for a food and nutrition policy in the Americas:
 - A. The role of the agricultural sector RICAZ3/18
 - B. The role of the health sector RICAZ3/11
6. Present status of programs for the prevention and control of foot-and-mouth disease and other livestock vesicular diseases. Country Reports RICAZ3/20 and RICAZ3/21
7. Research program of the Pan American Foot-and-Mouth Disease Center and the Pan American Zoonoses Center RICAZ3/5
8. Program and Budget Estimates of the Pan American Foot-and-Mouth Disease Center RICAZ3/7

9. Program and future financing for the Pan American Zoonoses Center RICAZ3/14
10. Panel discussions on foot-and-mouth disease vaccines:
- Use and experience with the Frenkel type vaccine RICAZ3/9
 - Tissue culture vaccines in foot-and-mouth disease control RICAZ3/3
 - Live virus vaccine in foot-and-mouth disease control RICAZ3/13
 - Accidents and reactions observed in foot-and-mouth disease vaccination RICAZ3/4
 - New vaccines and future prospects in foot-and-mouth disease immunization RICAZ3/6
11. Panel discussions on health aspects of the import and export of animals and animal products intended for consumption
- Present status of the production and consumption of animal products in the Hemisphere and prospects in the next 10 years RICAZ3/19
 - Health problems involved in the import and export of foodstuffs of animal origin RICAZ3/12
 - Problems involved in diseases associated with the import and export of animal products intended for consumption RICAZ3/16
 - Need for uniform animal health guidelines and regulations governing the import and export of animals intended for consumption and breeding RICAZ3/8
 - Present and future problems involved in the import and export of animals and animal products and their consequences for economic development RICAZ3/10

FINAL REPORT
(Document RICAZ3/26, Rev. 1)



PAN AMERICAN HEALTH ORGANIZATION



WORLD HEALTH ORGANIZATION

III INTER-AMERICAN MEETING ON FOOT-AND-MOUTH DISEASE AND ZONOSES CONTROL

BUENOS AIRES, ARGENTINA, 14-17 APRIL 1970

RICAZ3/26, Rev. 1 (Eng.)
17 April 1970
ORIGINAL: SPANISH

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FINAL REPORT

The III Inter-American Meeting, at the Ministerial Level, on Foot-and-Mouth Disease and Zoonoses Control was held at the San Martín Theater in the city of Buenos Aires, Argentina, from 14 to 17 April 1970. The meeting was convened by the Director of the Pan American Sanitary Bureau pursuant to Resolution XIX approved by the Directing Council of the Pan American Health Organization at its XVIII Meeting, and Resolution XV of the II Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control.

OFFICERS

The heads of delegations met on 14 April to elect the officers of the meeting. The following were elected:

President:	Dr. Lorenzo A. Raggio, Secretary of State for Agriculture and Livestock (Argentina)
Vice-Presidents:	General Jorge Barandiarán Pagador Minister of Agriculture and Fisheries (Peru)
	Hon. Lionel M. Robinson Minister of Agriculture, Land and Fisheries (Trinidad and Tobago)

Dr. Abraham Horwitz, Director of the Pan American Sanitary Bureau, served as Secretary ex officio.

PARTICIPANTS

The following Governments were represented at the meeting: Argentina, Barbados, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, France, Guatemala, Guyana, Honduras, Jamaica, Mexico, Kingdom of the Netherlands, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago, United Kingdom, United States of America, Uruguay, and Venezuela. The Government of Canada sent an official observer. Observers from the following international organizations were also present: Inter-American Development Bank, International Bank for Reconstruction and Development, United Nations Development Program, United Nations Children's Fund, Inter-American Institute of Agricultural Sciences, International Office of Epizootics, and Food and Agriculture Organization of the United Nations.

PLENARY SESSIONS

Dr. Abraham Horwitz, Director of the Pan American Sanitary Bureau, opened the meeting and in his address referred to the importance of prevention and cure of animal diseases for improving food and nutrition of the peoples of the Americas. He stressed that one immediate consequence of the agreement concluded by the Ministers of Health to establish a center for the compilation and analysis of food and nutrition data could serve as encouragement for the organization of extension of the services devoted to the compilation and use of data relating to the agricultural policy of the Governments.

Following the criterion that specialists in the fields of agriculture and health should work together, the Organization proposed to establish at its Headquarters a department in charge of coordinating all matters relating to those activities. Dr. Horwitz then reviewed briefly the agenda and stressed the importance of all the topics for the health and the economy of the countries.

Next, Dr. Lorenzo A. Raggio, Secretary of State for Agriculture and Livestock of Argentina, welcomed the participants and expressed the hope that the meeting would contribute to solve the problem created by the extraordinarily fast growth of the world demand for food. He ended his address expressing his wishes for the success of the meeting and for the establishment of closer bonds of cooperation between the countries and the international organizations concerned with the solution of animal health problems in the Hemisphere.

At the first plenary session, Mr. Juan F. Yriart, Regional Representative for Latin America and Assistant Director-General of the Food and Agriculture Organization, discussed the topic "Bases for a Food and Nutrition Policy in the Americas - The Role of the Agricultural Sector." He stressed the existing collaboration between his Organization and the Pan American Health Organization, which work together to improve the relationship between agricultural production and food and nutrition. He enumerated certain fundamental measures that could be adopted by the Governments of the countries to increase the production and supply of food, and strongly urged that a veritable crusade of human solidarity be launched to improve nutrition among the peoples.

Dr. Roberto Rueda-Williamson, Regional Adviser on Nutrition of the Pan American Sanitary Bureau, referred to the topic "The Responsibility of the Health Sector in Planning and Development of National Food and Nutrition Policies." He drew attention to the seriousness and magnitude of malnutrition and other deficiency diseases in large groups of population in Latin America, and to their adverse effects on the economic and social development of the countries. Special emphasis was given to the need for multisectorial action which should include health, agriculture, and education plans in order to formulate and implement a definite national food and nutrition policy in each country.

In connection with this topic, the Representative of Colombia presented a draft resolution on food availability and consumption indexes, and the Representative of Peru submitted another draft resolution on national food and nutrition policies.

At the second plenary session, Mr. Ildegar Pérez Segnini, Executive Director of the Inter-American Development Bank, referred to the Bank's activities in the agricultural and livestock sector of Latin America, and particularly to the importance of animal health in livestock development. He summarized the financial assistance granted not only to foot-and-mouth disease control campaigns in Argentina, Chile, and Paraguay and for the preparation of similar campaigns in other countries, but also to other zoonoses of economic and social importance such as brucellosis, rabies, hydatidosis, and tuberculosis. Lastly, he recommended that the countries draw up well-conceived animal health programs, which should be supported by suitable technical advice and take into account multinational aspects.

Following this address, the Representative of Paraguay expressed his country's recognition for the aid it had received from the Inter-American Development Bank in the development of its foot-and-mouth disease control program, and presented a draft resolution requesting the Bank to help finance demonstration and training programs at the Pan American Foot-and-Mouth Disease Center. The Representative of Brazil also presented a draft resolution dealing with international cooperation in animal health programs.

The second part of this plenary session was devoted to country reports on the status of vesicular diseases and to the prevention and control activities under way. Following the order of registration of speakers, reports were submitted by the following participants and countries: Dr. Teodorico Elejalde Terry (Peru), Dr. Lautaro Gómez Ramos (Chile), Dr. Ezelino Arteche (Brazil), Dr. Gabriel Baraya (Colombia), Dr. José Luis Roca García (Bolivia), and Dr. Pablo T. Quinteno Pinzón (Panama).

The first speaker at the third plenary session (15 April) was Dr. Ramón Rodríguez, Head of the Department of International Affairs of the University of Chile, who presented the report of the Scientific Advisory Committee on the "Research Program of the Pan American Foot-and-Mouth Disease Center and the Pan American Zoonoses Center." He expressed the Committee's satisfaction at the progress made in the field of research, which had attained a truly academic level, and stressed that the activities of both Centers, adequately coordinated with the national universities, would be an important factor that would benefit the countries and the international organizations. He pointed out that both Centers are in a unique position to train professionals in research of animal health problems common in the Americas and asserted that the activities carried out by the Centers cannot be substituted by individual action.

Following that statement, the Representative of Peru presented a draft resolution which was unanimously approved and is included in this report.

Next, Dr. Enrique García Mata presented the "Report of Zoonoses Control as an Integral Part of Agriculture and Livestock Development and the Role of the Pan American Zoonoses Center," containing the findings of the mission entrusted by PASB to the speaker, in conjunction with Drs. Juan T. Bowler and Rubén Lombardo pursuant to Resolution VIII of the II Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control. He reviewed the status with regard to the principal animal diseases in the Americas, examined their economic effects, and summarized the views expressed during his interviews with ministers and government officials with reference to the most important problems in their respective countries and the advice and assistance they would like to receive from the Pan American Zoonoses Center. Finally, he stressed the need for granting increased financial assistance to the Center in view of the growing demands made on it by the problem of animal diseases in the Americas.

The Representatives of Costa Rica, Paraguay, Venezuela, and the United States of America commended both the report and the Pan American Zoonoses Center on its work. The Representative of Colombia presented a draft resolution on the future programs and financing of the Center, which was adopted by 18 votes in favor, none against, and 3 abstentions.

During the second part of the session the draft resolutions presented at the second plenary session were put up for discussion and, there being no comments, were voted on and unanimously approved.

Dr. Mario V. Fernández, Director of the Pan American Foot-and-Mouth Disease Center, then presented the proposed program and budget estimates for the Center for 1971 and the provisional drafts for 1972 and 1973. After various comments and explanations, the Representative of Brazil submitted a draft resolution, which was unanimously adopted.

At the fourth plenary session, in the absence of the President and of both Vice-Presidents, the Hon. Robert J. Jordan (Guyana) was elected Provisional President. The session was devoted to reports on the status of vesicular diseases and other zoonoses presented by the following representatives: Mr. Rubén Espinosa R. (Ecuador), Hon. Robert J. Jordán (Guyana), Dr. Carlos H. Aguilar Avila (Honduras), Dr. Leonard V. Butcher (Trinidad and Tobago), Dr. Amador P. Nita (Kingdom of the Netherlands), Dr. Humberto Olmos (Venezuela), Dr. Cedric L. Bent (Jamaica), Dr. Nelson Magallanes Pastorino (Uruguay), Dr. Malcolm B. Proverbs (Barbados), Dr. José Luis Solano Astúa (Costa Rica), Mr. Ricardo R. Granada Pineda (El Salvador), Dr. Juan F. Urguizú Gutiérrez (Guatemala), Dr. Parisio Pineda Ayala (Paraguay), Dr. Gustavo Reta Pettersson (Mexico), Dr. Frank Mulhern (United States of America), Dr. Luis María Cuevas (Dominican Republic), Dr. Jorge Borsella (Argentina), Dr. John Reid (United Kingdom), Dr. Albert E. Lewis (Canada), and Dr. Louis R. Perpère (France).

After concluding his presentation, the Representative of the Kingdom of the Netherlands submitted a draft resolution on the cooperation rendered by the Food and Agriculture Organization of the United Nations (FAO), which was unanimously adopted.

The fifth plenary session (16 April) discussed the topics assigned to Panel A: "Foot-and-Mouth Disease Vaccines."

Dr. Jacob G. van Bekkum, Director of the Amsterdam Central Veterinary Institute (Kingdom of the Netherlands), in presenting his paper on "Use and Experiences with Frenkel-type Vaccine," referred to the excellent results obtained in his country with one yearly application of that vaccine on bovine cattle, and the enforcement of strict supplementary animal health measures including the slaughter of diseased or contaminated cattle. He stated that over 50 million vaccines had been applied in his country since 1953, and that not a single outbreak of foot-and-mouth disease had been recorded in the past two years.

Dr. John B. Brooksby, Director of the Animal Virus Research Institute of Pirbright (United Kingdom), then discussed the topic "Tissue Culture Vaccines (BHK) in Foot-and-Mouth Disease Control." He reviewed the advantages of cell lines in virus cultures for the production of vaccines and drew attention to their importance when planning large-scale vaccination campaigns.

In presenting the third topic, "Live Virus Vaccine in Foot-and-Mouth Disease Control," Dr. Carlos A. Palacios, Director of the Veterinary Research Center (Venezuela), summarized the history, results, and prospects of these types of vaccines, and referred particularly to the research work carried out in Venezuela and at the Pan American Foot-and-Mouth Disease Center.

The next speaker was Professor Manfred W. Mussgay, Director of the Federal Research Institute for Animal Virus Diseases of Tubigen (Federal Republic of Germany), who presented the topic "Accidents and Reaction Observed in Foot-and-Mouth Disease Vaccination." In his concluding remarks he called attention to the fact that the studies made in the Federal Republic of Germany showed that allergic postvaccination reactions were infrequent; consequently, while such reactions can occasionally pose some problems, this should not be a deterrent to the use of the vaccines to control the disease, particularly in view of the fact that there are technical means available, if needed, to reduce those reactions.

Panel A discussions closed with the presentation by Dr. Jerry J. Callis, Director of the Plum Island Animal Disease Laboratory (United States of America), on "New Vaccines and Future Prospects in Foot-and-Mouth Disease Immunization." He emphasized the research under way to improve inactivated vaccines by testing new inactivants and adjuvants and by virus concentration and purification techniques. He also referred to the possibilities of interferon in controlling the disease.

A discussion followed during which questions, views, and information were exchanged by the Representatives of Argentina, Colombia, Jamaica, United Kingdom, United States of America, and Uruguay, at the end of which three draft resolutions were presented. All three resolutions - one presented by Chile on foot-and-mouth disease vaccines, and two presented by Venezuela on the strengthening of animal health services and application of health measures in the control of foot-and-mouth disease, were unanimously approved.

The sixth plenary session opened with a report on Cuba, presented by Dr. Pedro Roca. Following this, the meeting proceeded with the discussion of the topics assigned to Panel B: "Health Aspects of the Import and Export of Animals and Animal Products Intended for Consumption," which included papers by Drs. José J. Cañón, Director of the Joint Economic Commission for Latin America/Food and Agriculture Organization Agricultural Division; Fernando Quevedo, of the Pan American Zoonoses Center; Teodorico Terry Elejalde, Assistant Director for Animal Health (Peru); H. Köningshöfer, of the Food and Agriculture Organization of the United Nations (presented by Dr. Frank J. Peritz, Regional Veterinarian of FAO), and Ernest E. Saulmon, Director, Animal Health Division (United States of America).

In his report on the "Present Status of the Production and Consumption of Animal Products in the Hemisphere and Prospects in the Next Ten Years," Dr. Cañón stressed the need for considering livestock problems with a broad outlook and for solving them through soundly conceived interdisciplinary action. During the presentation of the second topic, "Health Problems Involved in the Import and Export of Foodstuffs of Animal Origin," Dr. Quevedo called attention to the need for Latin American countries to adopt measures at the hemispheric level and to standardize food control methods in order to increase their exports and meet the growing demands of importers with regard to quality.

In referring to "Problems Involved in Diseases Associated with the Import and Export of Animal Products Intended for Consumption," Dr. Terry made some interesting remarks on the mobilization of cattle for consumption and recommended that multinational programs be carried out for the control of communicable and parasitic diseases.

Dr. Peritz presented the topic "Need for Uniform Animal Health Guidelines and Regulations Governing the Import and Export of Animals Intended for Consumption and Breeding," and Dr. Saulmon presented the paper entitled, "Present and Future Problems Involved in the Import and Export of Animals and Animal Products and Their Consequences for Economic Development." Both speakers concurred on the need for joint efforts to exchange knowledge and attain goals that will be reflected in the economic development of the Hemisphere. The importance of the concepts contained in these papers led Dr. Carlos Ruíz Martínez, President-Counselor of the National Council of Agricultural Research, International Office of Epizootics (OIE), to review the activities of that organization in the field of international legislation; he then called attention to the International Animal Health Code, and expressed his warmest congratulations to the Pan American Sanitary Bureau for its work in this field.

Next, Dr. Roberto Goic Martinic, Chief, Field Advisory Services, Pan American Foot-and-Mouth Disease Center, presented the topics "Epidemiological Surveillance of Foot-and-Mouth Disease" and "Reference Guide for Evaluation of Foot-and-Mouth Disease Control Programs." He stated that probably during the current year a definitive system of epidemiological surveillance of vesicular diseases would be established in the Americas, and that this guide was a valuable contribution to the evaluation of the progress and results of foot-and-mouth disease prevention and control campaigns.

Finally, Dr. Boris Szyfres, Director of the Pan American Zoonoses Center, presented the topic, "Epidemiological Surveillance of Rabies." He reviewed the work carried out by the Center in this field and also drew attention to the need to increase the production of vaccines and exercise stricter quality control.

During this session, several draft resolutions were examined and unanimously approved.

At the seventh plenary session (17 April), the Minister of Agriculture and Fisheries of Peru, General Jorge Barandiarán Pagador, reported that in April 1971 the VI Meeting of Ministers of Agriculture of the Americas, sponsored by the Organization of American States, would be held in Lima. He would therefore be pleased if the Pan American Sanitary Bureau would consider the possibility of holding the IV Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control in that city. The Representative of Nicaragua supported the proposal and the Representative of Uruguay requested that it be approved by acclamation. However, the Secretary of the Meeting, Dr. Pedro Acha, requested that the Pan American Sanitary Bureau be permitted to consult with the Organization of American States since the holding of two meetings of different organizations might create certain conflicts.

The Final Report was then read and approved unanimously without changes.

The Secretary explained that the Director of the Pan American Sanitary Bureau had to return to Washington unexpectedly for reasons beyond his control and requested him to greet the representatives on his behalf and to present his regrets for having to be absent from the closing session. He also expressed his appreciation for the collaboration rendered by the consultants, as well as the valuable participation of the Ministers and representatives. He requested that they sent to the Headquarters of the Organization any and all suggestions they deemed necessary with reference to the meeting. Lastly, he especially thanked the collaboration of the Government of Argentina which had made it possible to hold the discussions without difficulty and had led to their complete success.

The Meeting was closed by the General Barandiarán Pagador, who, on behalf of his country, thanked the representatives for having elected him Vice-President, and on behalf of all the representatives, thanked the Government of Argentina for their many kindnesses. After praising the work of the Pan American Health Organization for the benefit of the countries of the Hemisphere, he stated in closing: "The great significance of this Meeting can be seen in the important topics selected for consideration, the valuable analysis made on the status of the vital problems of the Hemisphere, and the resolutions adopted, based on a realistic concept of action that should be initiated or accelerated in the field of animal health for the benefit of economic and social development of the countries."

RESOLUTION I

VOTE OF THANKS TO THE SCIENTIFIC ADVISORY COMMITTEE

THE III INTER-AMERICAN MEETING,

Considering the importance of the scientific and technological activities of the Pan American Foot-and-Mouth Disease Center and Pan American Zoonoses Center to the understanding and control of these diseases;

Bearing in mind the variety of functions and the background of the professional staff of the Centers;

Having made a thorough appraisal of the report of the Scientific Advisory Committee on the work of the two Centers; and

Recognizing the excellent scientific qualifications of the members of the Committee,

RESOLVES:

1. To express its recognition for the comprehensive in-depty analysis contained in the report on the activities and achievements of the Centers.
2. To call attention to the recommendations for broader, more complex future endeavors in research, technical assistance, and training in problems relating to these diseases.
3. To express its appreciation to the Scientific Advisory Committee for its efforts reflected in this annual analysis and to support its recommendations.

(Approved at the third plenary session,
15 April 1970)

RESOLUTION II

PROGRAM AND FUTURE FINANCING FOR
THE PAN AMERICAN ZOOSES CENTER

THE III INTER-AMERICAN MEETING,

Having studied the Report on Zoonoses Control as an Integral Part of Agriculture and Livestock Development and the Role of the Pan American Zoonoses Center, which contains the results of a study requested in Resolution VIII of the II Inter-American Meeting;

Aware of the serious danger caused by the major zoonoses to human and animal health, as well as their harmful effect on economic growth and the development of the livestock industry;

Recognizing the essential role of the Pan American Zoonoses Center in education, research, and advisory services for the purpose of assisting the Governments in promoting, expanding, and improving national programs to control and prevent zoonoses;

Having taken note of the recommendations of the Scientific advisory Committee of the Pan American Zoonoses Center concerning the need for expanding its activities to provide broader services for zoonoses control on a regional basis, which will require additional financial support from Governments and the United Nations Development Program;

Noting the favorable reception accorded the Mission of Drs. Juan T. Bowler, Enrique García Mata, and Rubén Lombardo and the support expressed by the respective Ministries of Agriculture for continuing and expanding the work of the Center; and

Bearing in mind the importance to the future of the Center of obtaining an extension of the support of the United Nations Development Program as a regional center, as well as providing increasing financial support within the regular budget,

RESOLVES:

1. To express appreciation to the members of the Mission for their valuable services and excellent report.

2. To approve the recommendations on the program contained in the report in which Governments are requested to give special attention to programs for control and prevention of brucellosis, rabies, bovine tuberculosis, and hydatidosis, as well as on the activities of the Center in education, research, and advisory services.

3. To support a proposal to the United Nations Development Program for extension of financial assistance to the Center as a regional project and to request the Pan American Health Organization to collaborate with the Governments in the submission of the proposal.

4. To recommend to the XVIII Meeting of the Pan American Sanitary Conference that it approve an additional appropriation of \$300,000 for 1971 to meet the requirements of the Center as presented in Document RICAZ3/14 in the understanding that the Ministries of Agriculture of the Governments of the Organization will increase their financial support in accordance with the scale of assessments.

(Approved at the third plenary session,
15 April 1970)

RESOLUTION III

FOOD AVAILABILITY AND CONSUMPTION INDEXES

THE III INTER-AMERICAN MEETING,

Taking into account that although food balance sheets constitute important overall indicators of the food situation many Latin American countries do not prepare them regularly, or these contain incomplete or inaccurate data;

Considering that with goals for availability of food for human consumption it will be possible to give biological orientation to the plans for food production, imports, and exports;

Considering that food consumption surveys carried out on different specific population groups and classified according to various criteria (geographic, socioeconomic, biodemographic), make it possible to determine the actual consumption of food by the population,

RESOLVES:

1. To recommend to the Governments that they make a special effort to prepare and publish the food balance sheets annually on the basis of reliable data, and to adjust future goals for availability of food for human consumption in accordance with the nutritional needs of the population.

2. To recommend to the Governments that they conduct periodic food and nutrition surveys in order to determine the magnitude and characteristics of the nutritional problems and food consumption levels in the different strata and specific groups of the population and to ascertain the progress made in the fields of food and nutrition in Latin American countries.

(Approved at the third plenary session,
15 April 1970)

RESOLUTION IV

NATIONAL FOOD AND NUTRITION POLICIES

THE III INTER-AMERICAN MEETING,

Considering that food and nutrition problems are widely prevalent in Latin America and have an adverse effect on health, education, agriculture, and the economy, which hinder the development of the countries;

Bearing in mind that food and nutrition problems are caused by a number of complex factors involving different sectors of economic and social development; and

Considering that food and nutrition programs call for the implementation of coordinated, simultaneous intersectorial plans responding to a definite food and nutrition policy,

RESOLVES:

1. To recommend to the Governments that they formulate and implement national food and nutrition policies through the organization of technical committees or groups at the national planning level, which would assume the responsibility of formulating, encouraging, coordinating, and evaluating their development.
2. To recommend to the countries that they include food and nutrition programs in their respective sectorial plans for agriculture, economy, health, and education.
3. To request the Pan American Sanitary Bureau, the Food and Agriculture Organization of the United Nations, and the United Nations Children's Fund to promote in all the countries of Latin America the formulation and development of national health and nutrition policies, to which end it is suggested that a standing committee of these organizations be established, which would formulate and coordinate the activities of the proposed plan.

(Approved at the third plenary session,
15 April 1970)

RESOLUTION V

CONTRIBUTION OF THE INTER-AMERICAN DEVELOPMENT BANK
FOR THE PAN AMERICAN FOOT-AND-MOUTH DISEASE CONTROL CENTER

THE III INTER-AMERICAN MEETING,

Considering that the control of foot-and-mouth disease in South America depends on the correct application of the most efficient techniques for the manufacture, control and application of vaccines;

Bearing in mind the increasing demand for specialized personnel to develop the foot-and-mouth disease control programs envisaged in the Hemisphere;

Recognizing the constant and accelerated progress of foot-and-mouth disease control techniques and the need to put them into practice promptly;

Considering that the Pan American Foot-and-Mouth Disease Center operates as a regional reference, education, and training organization for the countries; and

Aware that with existing facilities and equipment of the Center it is not possible to develop techniques and methods for the production of various types of vaccines on a basis comparable to private industry, nor can their quality be controlled on a large scale,

RESOLVES:

To request the Inter-American Development Bank to supplement its firm support to the countries in their foot-and-mouth disease control programs by granting the Pan American Foot-and-Mouth Disease Center the financial assistance required to establish a demonstration unit for the control of foot-and-mouth disease. This unit would be devoted primarily to training personnel of the Hemisphere in industrial production of various types of vaccines and quality control systems; field methods of application of vaccines; and techniques for evaluating foot-and-mouth disease control programs.

(Approved at the third plenary session,
15 April 1970)

RESOLUTION VI

INTERNATIONAL COOPERATION IN ANIMAL HEALTH PROGRAMS

THE III INTER-AMERICAN MEETING,

Recognizing that an essential function of international organizations in the health, economic, and agricultural fields is to achieve increased coordination and development of the animal health programs in the Hemisphere;

Aware of the importance and magnitude of foot-and-mouth disease control programs, for which financial assistance is made available by international credit institutions, particularly the Inter-American Development Bank;

Bearing in mind the wishes expressed by the representatives of Governments at this meeting, as set forth in the report of the Special Mission of PAHO (Document RICAZ3/14), that national zoonoses control programs be initiated, particularly for brucellosis, tuberculosis, and bovine rabies, with financial assistance from international credit agencies; and

Considering that this effort to promote animal health programs should be carried out within the most efficient technical coordination at the multinational level,

RESOLVES:

1. To express its gratitude to the Inter-American Development Bank for the financial support it is granting to the countries to enable them to carry out their foot-and-mouth disease control campaigns, and for its decision to extend this support to the control of other animal diseases such as those mentioned, which cause serious economic and social problems to the countries of the Hemisphere.
2. To recommend to the countries in the planning stage of their national campaigns against foot-and-mouth disease and other animal diseases that they consider the possibility of supplementing the financing of these campaigns by making use of the credit facilities afforded by the Inter-American Development Bank.
3. To request the Pan American Health Organization to prepare, as soon as possible, standard techniques applicable, at the multinational level, to the programs for the control of the principal zoonoses, particularly brucellosis.

4. To request the Pan American Health Organization and the Food and Agriculture Organization of the United Nations, as well as other regional organizations, to provide the greatest technical assistance to the countries for the development and coordination of their campaigns against foot-and-mouth disease and other zoonoses.

(Approved at the third plenary session,
15 April 1970)

RESOLUTION VII

PROGRAM AND BUDGET ESTIMATES OF THE
PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER
FOR 1971 AND PROVISIONAL DRAFT FOR 1972

THE III INTER-AMERICAN MEETING,

Bearing in mind the serious and harmful effect of foot-and-mouth disease in the affected countries on nutrition, the livestock industry, and economic progress, and the constant threat to countries free of the disease;

Recognizing that the Pan American Foot-and-Mouth Disease Center plays an essential and effective role in the struggle to control and prevent the disease;

Having made a detailed study of the program and budget estimates for 1971 and the provisional draft for 1972;

Noting that the program continues along the lines approved but with increased emphasis on technical assistance and training in support of national programs for control and prevention;

Recognizing that the Scientific Advisory Committee pointed out that the quality of the proposed programs would make it possible to meet the expanded services requested by the countries, and recommended that these activities receive adequate financial support;

Noting further that the proposed budget increases are modest and that the major portion will be required to meet increasing costs,

RESOLVES:

1. To express its full support to the Pan American Foot-and-Mouth Disease Center and the program which it is carrying out.

2. To reaffirm the need for the Center to continue and increase its activities to provide the Governments with personnel training and technical advisory services essential for the planning, execution, and coordination of national and regional programs for the prevention and control of foot-and-mouth disease.

3. To emphasize the important applied research activities of the Center on the laboratory and field aspects of foot-and-mouth disease and the significance of these programs to the technical assistance provided to the countries in order to achieve ultimate control and prevention of the disease.

4. To recommend to the XVIII Meeting of the Pan American Sanitary Conference that it give favorable consideration to the approval of the proposed program and budget estimates of the Center for 1971 as set forth in Document RICAZ3/7.

5. To recognize that the provisional draft of the program and budget estimates for 1972 included activities that are scientifically and operationally sound which will make it possible to provide vital assistance to the countries, and that the draft will be subject to further study in 1971 by the IV Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control and by the Executive Committee and the Directing Council of the Pan American Health Organization.

(Approved at the third plenary session
15 April 1970)

RESOLUTION VIII

COOPERATION WITH THE FOOD AND AGRICULTURE ORGANIZATION
OF THE UNITED NATIONS

THE III INTER-AMERICAN MEETING,

Considering that the countries of Latin America are making special efforts to develop their livestock programs and to ensure the acceptability of their products in foreign markets; and

Considering that the Director General of FAO has repeatedly demonstrated his interest to obtain technical and scientific resources from outside the Region to strengthen the development of these programs,

RESOLVES:

To recommend to the Director of the Pan American Sanitary Bureau that he study the best possible means to take advantage of FAO's offer which will benefit the countries in the Region.

(Approved at the fourth plenary session
15 April 1970)

RESOLUTION IX

FOOT-AND-MOUTH DISEASE VACCINES

THE III INTER-AMERICAN MEETING,

Considering that foot-and-mouth disease vaccines are fundamental and indispensable for the success of campaigns against the disease;

Realizing the great importance of research on new techniques for the production of vaccines and of the development of such techniques in order to obtain an increasingly effective product at a low cost;

Bearing in mind that, whatever the technique used in their production, foot-and-mouth disease vaccines are a delicate biological product that requires special care in its preservation until it is used; and

Emphasizing the need and significance of using standardized biologicals for vaccine production and effective quality control,

RESOLVES:

1. To recommend to the Governments that they adopt the necessary measures to ensure that vaccine-producing laboratories are equipped with adequate facilities and properly trained personnel to guarantee the production of an effective vaccine.

2. To request the Pan American Foot-and-Mouth Disease Center to intensify its research work on the development of new techniques for the production and control of vaccines, and to cooperate with national laboratories or institutes engaged in research in this field.

3. To recommend to the countries that, as a fundamental element of their foot-and-mouth disease control programs, they establish official laboratories and services for controlling the production and efficacy of every batch of vaccine, as far as possible, including the distribution and application phases.

4. To request the Pan American Foot-and-Mouth Disease Center that, in collaboration with the Governments, it establish a commission for the preparation and adoption of standardized regulations and techniques for vaccine quality control that will be acceptable to animal health authorities of the Hemisphere.

(Approved at the fifth plenary session,
16 April 1970)

RESOLUTION X

STRENGTHENING OF ANIMAL HEALTH SERVICES

THE III INTER-AMERICAN MEETING,

Considering that foot-and-mouth disease and zoonoses control calls for the organization of veterinary medical services capable of making administrative decisions and taking action; and

Recognizing the need of strengthening official animal health services in order to place them on a level compatible with such responsibility,

RESOLVES:

1. To recommend to the countries that they give to the animal health services of their respective Ministries of Agriculture the hierarchical position commensurate with the importance of the problems under their responsibility.
2. To recommend furthermore that such services be provided with the stability, adequate financing, and administrative flexibility necessary for the efficient development of programs of prevention and control of foot-and-mouth disease and other animal diseases.

(Approved at the fifth plenary session,
16 April 1970)

RESOLUTION XI

APPLICATION OF HEALTH MEASURES IN THE
CONTROL OF FOOT-AND-MOUTH DISEASE

THE III INTER-AMERICAN MEETING,

Considering that foot-and-mouth disease control programs are at varying stages of development in most countries of South America and in the preparatory phase in others;

Bearing in mind the need of obtaining a high degree of immunity in the animal population exposed to risk of the disease;

Recognizing that the success of the programs depends not only on systematic vaccination of the animals but also on the strict and proper application of animal health control measures; and

Bearing in mind that health problems are common in some border areas and can extend into other areas,

RESOLVES:

1. To recommend to the Governments that during each stage of vaccination against foot-and-mouth disease they endeavor to immunize as many animals as possible.
2. To recommend to the Governments that they establish supervision systems that will enable them to suitably check vaccinations made by private persons or by personnel employed in the official program.
3. To recommend to the foot-and-mouth disease control authorities that they intensify the enforcement of animal health control measures designed to prevent the spread of the disease.
4. To request the countries to coordinate their foot-and-mouth disease control programs in border areas, with the cooperation of the Pan American Health Organization, through the Pan American Foot-and-Mouth Disease Center.

(Approved at the fifth plenary session,
16 April 1970)

RESOLUTION XII

INTERNATIONAL TRADE IN ANIMALS AND ANIMAL PRODUCTS

THE III INTER-AMERICAN MEETING,

Bearing in mind that international trade in animals and animal products for human consumption is an economic factor of major importance to the countries of the Americas;

Considering the increase in intraregional and interregional trade in animals and animal products resulting from the expansion of livestock development programs;

Recognizing that foot-and-mouth disease and other zoonoses are an obstacle to the development of such trade;

Considering the need of having uniform standards and criteria for health regulations in the different countries, in order to facilitate the solution of problems relating to international trade; and

Bearing in mind that the Regional Technical Animal Health Commission (Argentina, Bolivia, Brazil, Chile, Paraguay, and Uruguay) and the International Regional Organization for Health in Agriculture and Livestock (Panama, the Central American countries, and Mexico), have already taken steps to standardize import and export regulations,

RESOLVES:

1. To recommend to the Governments that they intensify their efforts to achieve the standardization and coordination of rules, regulations, and control procedures for the import and export of animals and animal products.

2. To request the Pan American Health Organization, through the Pan American Zoonoses Center and the Pan American Foot-and-Mouth Disease Center, to promote international coordination in this field, with the cooperation of the United Nations Food and Agriculture Organization and the regional animal health organizations, by providing personnel training and technical assistance to the countries.

3. To recommend to the Governments that they support and sponsor periodic meetings of animal health authorities, for the purpose of making a constant review and evaluation of health problems that affect intraregional and interregional trade in animals and animal products. For these meetings, it would be advisable to have the participation of the agencies of the Latin American Common Market.

(Approved at the sixth plenary session,
16 April 1970)

RESOLUTION XIII

FOOD HYGIENE

THE III INTER-AMERICAN MEETING,

Realizing that contaminated food products of animal origin cause serious health problems in the Hemisphere resulting in an unfavorable effect on protein sources in a region where protein deficiencies already constitute a major concern;

Considering the importance of intra- and interregional trade in food of animal origin, and the need to facilitate it through the use of standard procedures and techniques that permit adequate control of such foods;

Bearing in mind the increasing importance and requirements of health regulations in the countries relative to international commerce in animals and animal products for human consumption; and

Considering that for the organization of efficient food control services it is necessary to have adequate numbers of specialized professionals in microbiology, food technology, and hygiene,

RESOLVES:

1. To recommend to the Pan American Health Organization that it promote the coordination of activities developed by the national agencies in the field of food control, with a view to establishing uniform criteria for control applicable to the domestic and international food commerce.
2. To recommend to the countries that they prepare and enforce codes of sanitary procedures governing the production, processing, storage, transportation, and distribution of food.
3. To request the Pan American Zoonoses Center that, as part of its expanded program, it include gradual increases in advisory services to the countries and the training of professional personnel in the fields of microbiology and food hygiene.

4. To recommend to the universities and other scientific centers of the countries of the Hemisphere that they increase their food science training programs for personnel at all levels.

(Approved at the sixth plenary session,
16 April 1970)

RESOLUTION XIV

EPIDEMIOLOGICAL SURVEILLANCE OF FOOT-AND-MOUTH DISEASE

THE III INTER-AMERICAN MEETING,

Considering the report presented by the Pan American Foot-and-Mouth Disease Center (Document RICAZ3/17) on the activities carried out in the inter-American epidemiological surveillance program for foot-and-mouth disease that is being implemented pursuant to Resolution I of the II Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control;

Bearing in mind that the success of this program will depend largely on the cooperation it receives from the governmental organizations responsible for obtaining the information and promptly submitting it to the Center for compilation and subsequent distribution; and

Recognizing that it is necessary to have the highest degree of cooperation between the countries and the Center in reporting the cases of the disease in order to obtain the information that will permit the control and prevention of foot-and-mouth disease in the Hemisphere,

RESOLVES:

1. To request the Pan American Foot-and-Mouth Disease Center to intensify its activities for improving the inter-American system of epidemiological surveillance of foot-and-mouth disease.
2. To recommend to the countries that they establish a reporting and statistical service as part of their foot-and-mouth disease control programs, with a view to extending it to all animal health activities.
3. To recommend to the countries that they give their strongest possible support to the development of those services to enable the most rapid collection, analysis, and distribution of the basic information required for the epidemiological surveillance of foot-and-mouth disease.
4. To request the Pan American Foot-and-Mouth Disease Center to consider, among its future activities, the possibility of holding a meeting of specialists in animal disease reporting to examine the methods currently used and the progress being made in foot-and-mouth disease control.

(Approved at the sixth plenary session,
16 April 1970)

RESOLUTION XV

REFERENCE GUIDE FOR EVALUATING FOOT-AND-MOUTH
DISEASE CONTROL PROGRAMS

THE III INTER-AMERICAN MEETING,

Having considered the "Reference Guide for Evaluating Foot-and-Mouth Disease Control Programs" (Document RICAZ3/15), prepared by the Pan American Foot-and-Mouth Disease Center pursuant to Resolution XIII of the II Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control;

Bearing in mind that the Guide contains the basis for evaluating the development and results obtained in foot-and-mouth disease campaigns and those that are indispensable for the planning of future activities in the control of this disease, at both the national and multinational levels,

RESOLVES:

1. To recommend to the countries that they establish an evaluation unit as soon as possible within the structure of their national foot-and-mouth disease control services, and that it apply the procedures and indicators outlined in the above-mentioned Guide.

2. To recommend to the Pan American Foot-and-Mouth Disease Center that it organize a meeting of the officials responsible for the evaluation units cited above for the purpose of reviewing and analyzing the results of experience obtained in applying the Reference Guide.

(Approved at the sixth plenary session,
16 April 1970)

RESOLUTION XVI

EPIDEMIOLOGICAL SURVEILLANCE OF RABIES

THE III INTER-AMERICAN MEETING,

Considering the report presented by the Pan American Zoonoses Center on the operation of an epidemiological surveillance service for rabies in the Americas pursuant to Resolution VII of the II Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control;

Recognizing that this report contains up-to-date epidemiological information on rabies which is indispensable for carrying out efficient programs for the prevention and control of the disease;

Bearing in mind the economic importance of bovine rabies and the need of having available as much epidemiological information as possible in order to determine more precisely the magnitude of the losses and to promote a better development and evaluation of control programs;

Realizing that it is necessary to improve case-reporting systems and the collection and shipment of samples to laboratories, and to have a larger number of diagnostic laboratories located in strategic areas of the affected countries; and

Bearing in mind that in various countries the cases reported include those diagnosed clinically and by laboratory methods,

RESOLVES:

1. To express its satisfaction at the establishment by the Pan American Zoonoses Center of an epidemiological rabies surveillance service for the Americas, recognizing its usefulness for rabies control programs, both in the field and in the laboratory.
2. To recommend to all the Governments of the Americas that they participate in this important disease-reporting system by forwarding rabies information regularly to the Pan American Zoonoses Center.
3. To recommend the installation, expansion, or improvement of laboratories for diagnosing rabies, according to the needs of each country.

4. To recommend to the countries that they improve their rabies-reporting system, including the collection and shipment of samples to laboratories.

5. To request the countries to report all cases of bovine rabies whether diagnosed clinically or by laboratory methods.

6. To recommend that the Pan American Zoonoses Center continue and expand its service of epidemiological surveillance of rabies, and examine periodically its development and gradual improvement with the Governments.

(Approved at the sixth plenary session,
16 April 1970)

RESOLUTION XVII

CONTROL OF VACCINES AGAINST BOVINE RABIES

THE III INTER-AMERICAN MEETING,

Bearing in mind that vaccination against bovine rabies is an essential weapon in the fight against the disease and that its value depends on the quality of the vaccine used;

Recognizing the desirability of standardizing the methods of quality control for rabies vaccine used in various countries, by coordinating research in methods used in field and laboratory tests; and

Considering the need of submitting each batch of vaccine for examination by official control methods for potency, innocuity, and purity, according to standard requirements,

RESOLVES:

1. To recommend that the countries establish a systematic method of control over vaccines against bovine rabies, both domestic and imported, adopting the necessary measures so that the official control services will have an adequate supply of trained personnel, equipment, and resources to control these examinations.

2. To request that the Pan American Zoonoses Center, in addition to providing training, reference services, and biologicals through its expanding programs, cooperate with the countries in the verification and periodic standardization of laboratory tests for the control of vaccines against bovine rabies as well as in evaluating the efficacy of the vaccine.

(Approved at the sixth plenary session,
16 April 1970)

RESOLUTION XVIII
EDUCATION AND TRAINING

THE III INTER-AMERICAN MEETING,

Considering the interest shown by the Governments in the development and conduct of campaigns against foot-and-mouth disease, brucellosis, tuberculosis, bovine rabies, and other zoonoses;

Bearing in mind that the implementation and development of such campaigns entail heavy investments by the Governments and the international credit organizations, as well as the support and backing of technical and administrative structures that will permit the effective control of these diseases; and

Recognizing the need of increasing the number of trained professional personnel required for the various stages of the implementation of animal health programs in the Americas,

RESOLVES:

1. To recommend to the countries that they intensify the training of personnel at all levels to assure the successful development of animal health campaigns.
2. To request the Pan American Health Organization to consider the possibility of increasing its cooperation with the countries in the training of veterinarians in the planning, administration, and evaluation of animal health programs.

(Approved at the sixth plenary session,
16 April 1970)

RESOLUTION XIX

EQUINE ENCEPHALOMYELITIS

THE III INTER-AMERICAN MEETING,

Considering that the reports presented by the representatives of several countries reveal the frequent appearance of cases of equine encephalomyelitis;

Recognizing that the disease has spread to various countries of Central and South America and has caused fatal cases among human beings; and

Bearing in mind that epizootic outbreaks among horses can cause extremely high losses,

RESOLVES:

To recommend to the Pan American Health Organization that it appoint a working party to examine this problem, consider possible solutions, and propose action to be taken.

(Approved at the sixth plenary session,
16 April 1970)

RESOLUTION XX

TECHNICAL ASSISTANCE IN EQUINE
ENCEPHALOMYELITIS AND VESICULAR STOMATITIS

THE III INTER-AMERICAN MEETING,

Considering that the zoonoses cause serious economic losses in important geographic areas with serious risks of spread of the disease and public health hazards such as occurs with equine encephalomyelitis;

Bearing in mind that in addition to causing economic losses, other diseases interfere with the development of control and eradication programs for foot-and-mouth disease, thereby interfering with the detection of the disease, such as occurs with vesicular stomatitis,

RESOLVES:

To request the Pan American Foot-and-Mouth Disease Center and the Pan American Zoonoses Center, in close cooperation with other international agencies, to provide technical assistance to the affected countries in order to study essential aspects such as epidemiology, vector identification, and reservoirs, and carry out vaccine production for the control and/or eradication of the above-mentioned diseases.

(Approved at the sixth plenary session,
16 April 1970)

RESOLUTION XXI

VOTE OF THANKS TO THE GOVERNMENT OF ARGENTINA

THE III INTER-AMERICAN MEETING,

Bearing in mind the wholehearted collaboration of the Government of Argentina in the holding of the present meeting, and the generous support and active participation of that Government in its organization, which contributed in great measure to the successful outcome of its deliberations,

RESOLVES:

To express its thanks to the Government of Argentina for its cooperation in the conduct of this III Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control.

(Approved at the sixth plenary session,
16 April 1970)



PAN AMERICAN HEALTH ORGANIZATION



WORLD HEALTH ORGANIZATION

III INTER-AMERICAN MEETING ON FOOT-AND-MOUTH DISEASE AND ZONOSSES CONTROL

BUENOS AIRES, ARGENTINA, 14-17 APRIL 1970

RICAZ3/22, Rev. 3
17 abril 1970
ORIGINAL: ESPAÑOL-ENGLISH

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PROGRAM AND BUDGET ESTIMATES OF THE
PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER -
PROPOSED BUDGET FOR 1971 AND PROVISIONAL
DRAFT FOR 1972 AND 1973

(Document RICAZ3/7)



PAN AMERICAN HEALTH ORGANIZATION



WORLD HEALTH ORGANIZATION

III INTER-AMERICAN MEETING ON FOOT-AND-MOUTH DISEASE AND ZONOSSES CONTROL

BUENOS AIRES, ARGENTINA, 14-17 APRIL 1970

Draft Agenda Item 8

RICAZ3/7 (Eng.)
12 March 1970
ORIGINAL: SPANISH

PROGRAM AND BUDGET ESTIMATES OF THE PAN AMERICAN FOOT-AND-MOUTH
DISEASE CENTER

PROPOSED BUDGET FOR 1971

PROVISIONAL DRAFT FOR 1972 and 1973

PROPOSED BUDGET FOR 1971
PROVISIONAL DRAFT FOR 1972 AND 1973

Introduction

The Pan American Foot-and-Mouth Disease Center is financed by the Member Governments as Part VI of the Regular Budget of the Pan American Health Organization, as recommended by the resolutions adopted at meetings of the Inter-American Economic and Social Council (IA-ECOSOC) (Viña del Mar, Chile, June 1967), the Inter-American Committee on the Alliance for Progress (CIAP) (Rio de Janeiro, Brazil, September-October 1967), and the Directing Council of the Pan American Health Organization (Port of Spain, Trinidad and Tobago, October 1967).

The decisions and resolutions of these Governing Bodies were confirmed by the Inter-American Meeting on the Control of Foot-and-Mouth Disease and Other Zoonoses, at the Ministerial Level, which was held at the Headquarters of the Pan American Health Organization in Washington, D. C., from 8 to 11 April 1968. At the Second Meeting, which was held in Rio de Janeiro from 14 to 17 May 1969, the Ministers (Secretaries) of Agriculture of the American Republics and Representatives of France, the United Kingdom, and the Kingdom of the Netherlands, reviewed and recommended the approval of the program and budget estimates of the Center for 1970 and the provisional draft program and budget estimates for 1971, and recognized the importance of the activities embodied in the program and budget. These decisions are reflected in Resolution II of the above-mentioned meeting, which reads as follows:

RESOLUTION II

"DRAFT PROGRAM AND BUDGET ESTIMATES OF THE PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER FOR 1970 AND PRELIMINARY DRAFT FOR 1971

THE II INTER-AMERICAN MEETING, AT THE MINISTERIAL LEVEL,
ON FOOT-AND-MOUTH DISEASE AND ZOONOSES CONTROL,

Recognizing the importance of foot-and-mouth disease for nutrition, the development of the livestock industry, and the economic progress of the Americas;

Mindful of the activities of the Pan American Foot-and-Mouth Disease Center in the promotion, conduct, and coordination of programs for the prevention and control of this disease;

Noting Resolution I of the I Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control (Washington, D.C., 8-11 April 1968) concerning the draft program and budget estimates for 1969 and the preliminary draft program and budget estimates for 1970; and

Having considered in detail the draft program and budget estimates for 1970 and taken note of the preliminary draft program and budget estimates for 1971,

RESOLVES:

1. To pledge its full support to the Pan American Foot-and-Mouth Disease Center and the work it is carrying out.
2. To emphasize the need for the Center to continue its activities in the promotion, conduct, and coordination of programs for the prevention and control of foot-and-mouth disease, as well as its research program and its program for the training of personnel from the countries of the Americas, as mentioned in the draft program and budget estimates for 1970 and the preliminary draft for 1971.
3. To note that the draft program and budget estimates of the Center provide for balanced activities necessary to furnish the Governments with scientific assistance and technical advisory services in the planning, execution, and coordination of national and regional programs for the prevention and control of foot-and-mouth disease.
4. To recommend to the XIX Meeting of the Directing Council of the Pan American Health Organization that it give favorable consideration to the approval of the draft program and budget estimates of the Center for 1970 as set forth in Document RICAZ2/4.
5. To note that the preliminary draft of the program and budget estimates for 1971 contains activities that are soundly conceived and very necessary, and that the draft will be subject to further discussions in 1970 by the III Inter-American Meeting, at the Ministerial Level, on Foot-and-Mouth Disease and Zoonoses Control and by the Executive Committee and the Directing Council of the Pan American Health Organization."

(Approved at the sixth plenary session,
16 May 1969)

The Nature of the Problem

Foot-and-mouth disease is the most important animal disease in the countries it affects and is a constant threat to the other countries in this Hemisphere that are free of it. Its great economic significance and the difficult and complex measures required for controlling it were the main reasons for the establishment of the Center. The chief factors involved in foot-and-mouth disease may be summarized as follows:

1. The highly contagious nature of the disease and the rapidity with which it spreads among cattle, swine, sheep, and other cloven-hoofed animals.
2. The financial losses suffered by agriculture as a result of the disease.
3. The harm it does to the production of animal protein and the relation between this and the severe problem of protein malnutrition in the growing human population of the Americas.
4. Losses suffered by national economies through the closing of export markets, since countries that are free of the disease cannot run the risk of importing animals or animal products from countries that are affected by it.

In recent years there has been a full recognition of the effects of the disease on the economies and development of countries that are in large measure dependent upon livestock production, pointing to the urgent need to launch national and multinational campaigns for foot-and-mouth disease control.

Objectives

The principal objectives of the Center are to help the disease-free countries to remain free of foot-and-mouth disease and to assist the affected countries in their efforts to control and possibly eradicate the disease. It seeks to attain this goal through its three main activities: research and diagnosis, training and field advisory services.

I. RESEARCH AND DIAGNOSIS

Basically, the research program of the Center comprises three types of activities:

1. Diagnosis and reference.
2. Studies for the immediate solution of practical problems of importance to the countries.

3. Basic studies designed to investigate more thoroughly the characteristics of the foot-and-mouth disease virus, so as to find solutions to problems related to control of the disease, such as lasting immunization, survival of the virus, and asymptomatic carriers.

These three activities are encompassed in the following major projects:

(a) The identification and study of the characteristics of the strains of foot-and-mouth disease and vesicular stomatitis viruses causing field outbreaks, as well as those used for the production of vaccines, and, in potency control, the identification of types and subtypes in its Diagnostic and Reference Laboratories and in cooperation with the World Reference Laboratory.

(b) The improvement of existing foot-and-mouth disease vaccines and the investigation of vaccines providing better and more lasting immunity. To that end a study is being made of the classic forms of inactivated virus vaccines, modified live virus vaccines, and some that have been developed recently such as the so-called oil type.

(c) The preparation and maintenance of a strain collection of various subtypes of foot-and-mouth disease virus considered to have epizootiological importance and adapted to the Frenkel method, BHK-21 cell lines, and rabbit embryo organs and tissues.

(d) The simplification of tests to ascertain the effectiveness of vaccines so as to ensure that a reliable product is available for field campaigns.

(e) The solution of problems related to the effects of the disease on international trade, such as the survival of the virus and study of carriers.

The experts of the Research Department also assist the various countries of the Americas in problems related to their special field and cooperate with the Training Department in national and international courses as well as in individual training.

II. TRAINING

Through its teaching program the Center assists in the training of veterinary medical officers and technicians engaged in combatting foot-and-mouth disease, by means of international and national courses and individual postgraduate-type training. Such training is provided at all levels in the various branches of science used in the study of foot-and-mouth disease.

The Center issues a publication entitled Cuadernos del Centro Panamericano de Fiebre Aftosa, which disseminates the knowledge and techniques reported and available in the world literature as well as those developed by its scientists. This publication will soon become a quarterly bulletin and will include epidemiological and special data regarding foot-and-mouth disease control in the Hemisphere, as well as general information.

The Center also has a library which receives most of the books and reviews related to virology, immunology, and epidemiology.

III. FIELD ADVISORY SERVICES

Through the provision of consultative and advisory services the Center assists in:

1. Planning, organizing, conducting and improving the efficiency of national foot-and-mouth disease control campaigns.
2. Assisting the countries in preparing loan applications for foot-and-mouth disease campaigns to be submitted to international lending agencies.
3. Encouraging intercountry coordination through bilateral, regional, or multilateral agreements for the control and prevention of foot-and-mouth disease.
4. Advising on the organization and conduct of preventive programs in disease-free countries.
5. Determining, through the conduct of field studies, the most effective measures for prevention and control of the disease and evaluation of national campaigns.

In the annual budgets the following percentages will be assigned to each of the aforementioned activities in accordance with the administrative structure of the Center:

	<u>Research Diagnosis-Reference</u>	<u>Training</u>	<u>Field Advisory Services</u>
1971	53.5%	8.8%	21.5%
1972	55.0%	8.9%	20.0%
1973	53.5%	9.8%	20.6%

Distribution of the funds in accordance with the program of direct services to the Governments is indicated in Table 1.

TABLE 1 - PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER
 BREAKDOWN OF THE BUDGET IN ACCORDANCE WITH THE PROGRAM OF
 DIRECT SERVICES TO THE GOVERNMENTS
 1971 - 1972 - 1973

YEAR	SERVICES FOR LABORATORY ACTIVITIES (a)		FIELD SERVICES FOR PREVENTION AND CONTROL PROGRAMS (b)		TRAINING (c)		RESEARCH (d)		ADMINISTRATION (e)		TOTAL BUDGET	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
1971	343,066	24.4	382,065	27.2	228,223	16.2	405,580	28.9	46,100	3.3	1,405,034	100.0
1972	377,372	24.4	420,271	27.2	251,045	16.2	446,138	28.9	50,711	3.3	1,545,537	100.0
1973	407,561	24.0	470,703	27.7	281,170	16.5	481,329	28.3	58,828	3.5	1,700,091	100.0

- (a) Includes the item for diagnostic and reference laboratories as well as costs of laboratory advisers providing direct services to the Governments and of supplies sent to the countries.
- (b) In addition to field advisory services, includes personnel and administrative costs of field studies of vaccines, epidemiology of the disease, carriers etc., performed jointly by the field advisory services and laboratories. Also includes costs of meetings.
- (c) These funds include the budget of the Training Department (personnel, fellowships, national and international courses, short-term consultants, supplies and equipment, and publications) as well as costs of personnel, supplies and other administrative expenditures of the other departments involved in training activities.
- (d) Includes research expenditures incurred by the Center's headquarters laboratories in coordination with the institutes or laboratories of some countries. Includes personnel, supplies, and equipment costs as well as administrative costs.
- (e) Funds allocated for general administrative expenditures of the Center (finances, personnel, supplies and general services).

Administrative Organization of the Center

The structure of the Center comprises an Office of the Director and four Departments (Research and Diagnosis, Training Activities, Field Advisory Services, and Administrative Services).

The research and diagnosis activities are the responsibility of the laboratories at the Headquarters of the Center which have the following sections: diagnosis and reference, inactivated vaccines, modified live virus vaccines, survival of viruses, and general research. Some research activities are carried out jointly with the countries.

The Training Department is responsible for fellowships, the organization of training courses and scientific meetings, the library, and the publications and information services.

The staff of the Field Advisory Services Department work out of Headquarters in Rio de Janeiro and through its consultants stationed in various countries. This Department provides advice on epidemiology, administrative methods, statistics, planning, and evaluation of foot-and-mouth disease control campaigns.

The Administrative Services Department is made up of the following sections: Finance, Personnel, Supplies, and General Services (see Organizational Chart, page 8).

AIMS - METHODS - ACHIEVEMENTS

I. Office of the Director

There will be no changes in the Office of the Director during fiscal 1971, 1972, and 1973. The international staff, as well as local, auxiliary, and secretarial staff, will be maintained at their present level and number.

II. Research Activities

1. Diagnosis and Reference

In 1961, 611 specimens from eleven South American countries were typed and subtyped; the results are indicated in Table 2. The number of samples for diagnosis and identification that the Center will receive in the period 1970 through 1973 is expected to increase, inasmuch as the countries are stepping up their foot-and-mouth disease campaigns. The training courses of the Center and individual training of technical personnel of the countries will also result in an increase in the number of samples sent to the Center. Under Resolution X of the Meeting at the Ministerial Level of May 1969, the Center has been designated as the reference laboratory for the Hemisphere

ORGANIZATIONAL CHART OF THE PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

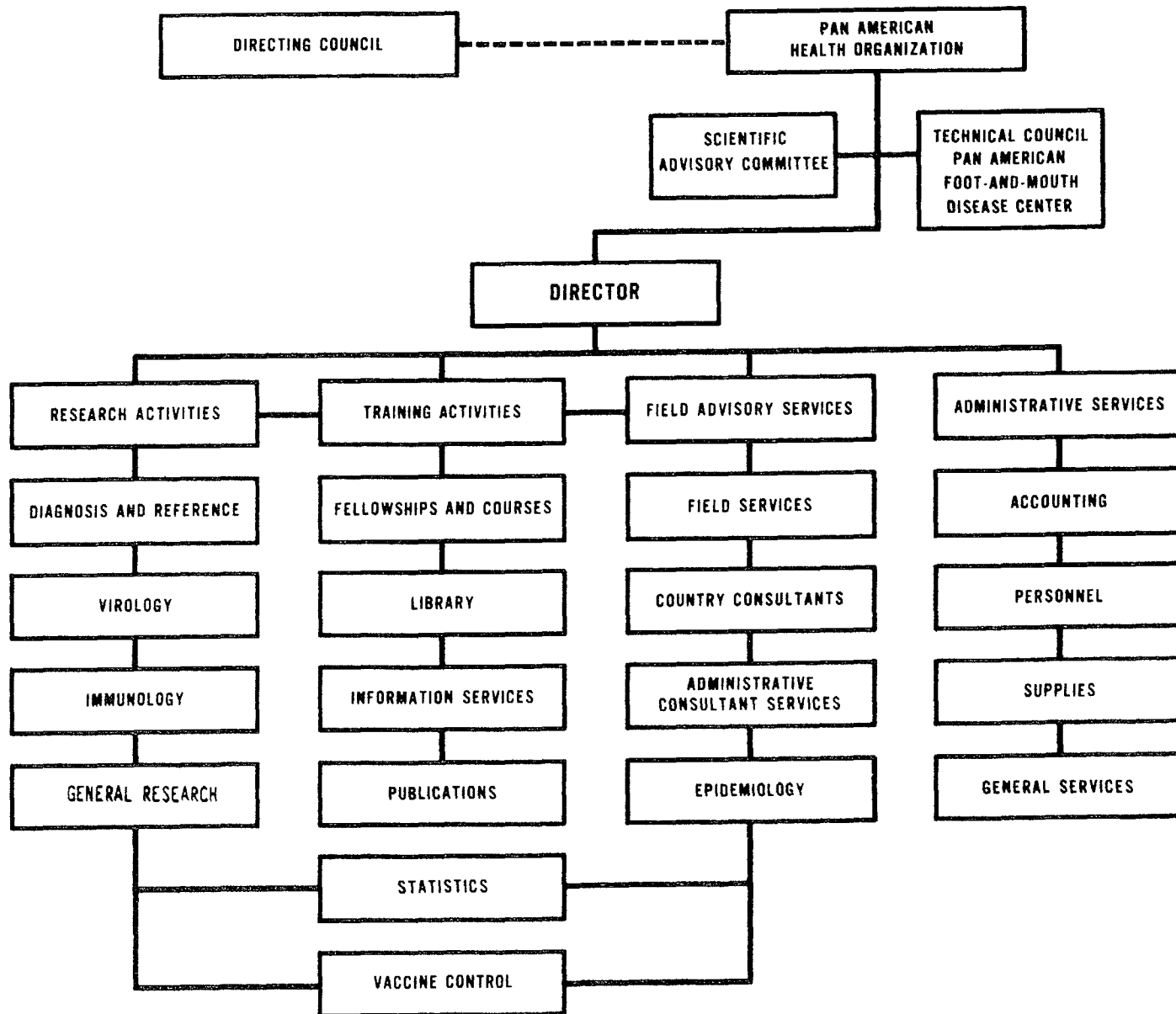


TABLE 2 - RESULTS OF THE EXAMINATION OF 611 EPITHELIUM SPECIMENS RECEIVED FOR DIAGNOSIS AND TYPING
AT THE PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER DURING 1969

Types and Subtypes of the Foot-and-Mouth Disease Virus																	
Country	0-1	A-10	A-24	A-25	A-26	A-27	A- Bra/ 68*	A- Col/ 69*	A- Urug/ 68*	A- Peru/ 69*	C-3 Res	C-4 T.F.	C- Arg/ 69*	C- Para/ 69*	A- Vallée **	Neg.	Total
Argentina	13		3+	18	11						7	1+	42		14	7	116
Bolivia	10		1	1													12
Brazil	24		14	3			14				48	5				8	116
Chile	5			1+	4												10
Colombia	3					5		8									16
Ecuador	44					2											46
Guyana	10															7	17
Paraguay	84		52			1					3			38		54	232
Peru	1		2		1	6				9			1++				20
Uruguay	2	1		4					4								11
Venezuela	1		3+			7					4+						15
Total	197	1	75	27	16	21	14	8	4	9	62	6	43	38	14	76	611

* Awaiting assignment of the appropriate international classification number

** Under Study

+ Laboratory specimens

++ Specimen taken - on board ship - from an animal purchased in Argentina

for countries in which the disease exists. They will send to the Center specimens from foci or outbreaks which are believed to have been caused by a new virus type or subtype. Thus, although the countries may have a steadily increasing number of professional personnel with a knowledge of foot-and-mouth disease diagnostic techniques, recognition of the important role of virus subtypes in the epizootiology of the disease will make it necessary for the Center to expand its subtyping studies so as to be in a position to advise the countries regarding the strains that should be used in vaccine production and tests for ascertaining their effectiveness.

In 1969 the Center identified five new subtypes of the foot-and-mouth disease virus, which in due course were sent to the World Reference Laboratory for assignment of the appropriate number. They were provisionally given the following designations:

A	-	Colombia	-	69
A	-	Peru	-	69
A	-	Uruguay	-	68
C	-	Argentina	-	69
C	-	Paraguay	-	69

The Center continues to supply sera and reference viruses to national diagnostic laboratories. In 1969 it sent 1,224 ml. of hyper-immune guinea pig sera from 31 subtypes of the foot-and-mouth disease and vesicular stomatitis virus to fourteen countries - sufficient material for approximately 650,000 complement-fixation tests. In view of the increase in diagnostic activities in the countries, it is estimated that it will be necessary to expand this quantity significantly during the next few years. In addition, 105 ml. of hyper-immune guinea pig sera were sent to the World Reference Laboratory for research and stock purposes.

In 1969, 1,167 specimens were examined in the course of the research work of the Center.

With reference to typing and subtyping of vesicular stomatitis virus, the Center examined 41 specimens from six Central American countries, and Ecuador, of which 32 were epithelium samples and 9 were serum samples. The results are shown in Tables 3 and 4. It must be emphasized that all specimens from those areas require immediate diagnosis so as to enable prompt adoption of the necessary sanitary measures, bearing in mind the serious economic consequences of an outbreak of foot-and-mouth disease in those countries.

The following percentages of the Research Activities budget will be allocated to the work of the Diagnosis and Reference Section:

1971	18.9%
1972	19.0%
1973	19.0%

TABLE 3 - RESULTS OF THE EXAMINATION OF 32 EPITHELIUM SPECIMENS
RECEIVED FOR DIAGNOSIS AND TYPING AT THE
PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER IN 1969

Country	Types and Subtypes of Vesicular Stomatitis Virus		Neg.	Total
	New Jersey	Indiana I		
Costa Rica	1		2	3
Ecuador	2			2
El Salvador		5		5
Guatemala	1			1
Honduras	6		5	11
Nicaragua	4	1		5
Panama	1		4	5
Total	15	6	11	32

TABLE 4 - RESULTS OF THE EXAMINATION OF 9 SERUM SPECIMENS
RECEIVED FOR DIAGNOSIS AND TYPING AT THE
PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER IN 1969

Country	Vesicular Stomatitis	Neg.	Total
	New Jersey		
Costa Rica	1		1
El Salvador	4		4
Nicaragua		1	1
Panama		3	3
Total	5	4	9

2. Inactivated Vaccines

Production of inactivated vaccines which are used in most of the foot-and-mouth disease campaigns in the Continent will have to be raised to approximately 450 million doses a year if the immunization needs of the livestock population of South America are to be met. Any improvement in the duration of immunity provided by inactivated vaccines and in their cost will be favorably reflected in a reduction in campaign costs. This is why the Center is continuing to investigate virus multiplication in order to obtain more economical sources for antigen production, new inactivators that provide a better guarantee of the safety of the vaccines produced without affecting their immunizing antigenic qualities, and new adjuvants that will make it possible to obtain more potent vaccines. The vaccines being used in foot-and-mouth disease campaigns do not produce adequate immunity in swine. It has, therefore, been necessary for the Center to investigate this problem with a view to obtaining an adequate vaccine for that species.

In cooperation with the Animal Diseases Research Laboratory of Plum Island of the Department of Agriculture of the United States of America, the Center, since 1968, has been carrying out a number of experiments for that purpose, using inactivated vaccines of the classic type as well as vaccines inactivated with Acetylaziridine (A.E.I.), the oil adjuvant being a mixture of Arlacel and Markol 52. From the first phase of the experiments which was completed in 1969, the following preliminary conclusions may be drawn:

Swine: Immunity was not produced in any of the hogs vaccinated with aluminum hydroxide-saponin vaccine prepared from antigens produced in Frenkel cultures. Revaccination with the same vaccine, three and a half months after initial vaccination, did not confer immunity on this species. Animals vaccinated with the oil-adjuvant vaccine, mentioned above, did not show protection when challenged three months after vaccination. Revaccination with this vaccine three and a half months after the initial inoculation caused a substantial increase in the circulating antibodies, and some of the animals showed a good degree of protection.

Cattle: Animals vaccinated with the aluminum hydroxide-saponin vaccine showed a curve of antibody levels in accordance with what had been ascertained earlier. On being challenged three and a half months after vaccination, only four out of the fifteen animals showed protection. On revaccination four months after the initial vaccination, a considerable increase was noted in the antibody level and, three months after that revaccination, cattle showed complete protection when challenged by the virus. The results in the case of cattle vaccinated with the oil vaccine were similar to those with cattle vaccinated with the aluminum hydroxide vaccine.

Sheep: Sheep vaccinated with the aluminum hydroxide-saponin vaccine showed a good level of immunity when challenged one, three, six and, nine months after vaccination. The antibody levels verified in the last-mentioned animals were considerably higher than those found in animals vaccinated with the aluminum hydroxide vaccine, and were much closer to the curve obtained in convalescent animals.

The not very satisfactory preliminary results obtained in swine and cattle may be due either to the fact that the oil-type vaccine used did not contain a sufficient amount of antigen or to some other physico-chemical factor in the preparation of the oil emulsion which, as has been shown, is an important factor in the quality of those vaccines. The Center is therefore undertaking a complementary program of research on the two above-mentioned species, using a larger amount of antigen in a more stable emulsion.

Tests to ascertain the effectiveness of the vaccine, which in earlier experiments had been made with respect to only one type of virus Type O Vallée, subtype O₁, Caseros strain, in the present experiment will be made for three types of virus (O Vallée, subtype O₁, Caseros strain; A Vallée, subtype A₂₄, Cruzeiro A strain; C Waldmann, subtype C₃, Resende Strain). In these experiments batches of the oil-type vaccine produced in the Center are being used, including a concentrated and purified oil vaccine.

There is good reason to believe that the oil-type vaccine may produce adequate protection in swine and thus contribute to the solution of one of the most difficult immunological problems in the control of foot-and-mouth disease.

The appearance of new subtypes of foot-and-mouth disease virus can create serious epizootiological problems for national campaigns. The Center, therefore, maintains various subtypes adapted to the Frenkel method of culture as well as to BHK-21 cell lines so as to be able to supply them to countries for the production of specific vaccines whenever necessary and thus prevent the loss of time involved in adapting them.

In 1969, a cross-immunity study was made of subtype C Resende and C Tierra del Fuego, since subtype C Resende is that used by the countries for the production of vaccines, and it might happen that these vaccines would not confer adequate immunity with respect to subtype C Tierra del Fuego which has appeared in some countries in Latin America. The protection conferred by vaccines prepared with subtype C Resende vaccines to the two subtypes was acceptable. Vaccines prepared with the subtype C Tierra del Fuego vaccines conferred acceptable immunity with respect to the homologous virus, but did not produce any immunity to subtype C Resende.

In 1969, tests of the duration of the immunity in calves inoculated with trivalent-inactivated vaccine were completed. Calves revaccinated at two-month intervals showed higher sero-protection indices than those considered indicative of an acceptable immunity, up to the time of the completion

of the experiment. The curves of the antibody levels of animals vaccinated at four-month intervals (treatment recommended for adult cattle) showed an acceptable increase in antibodies after the second and third revaccination, followed by a rapid diminution, indicating that this treatment schedule (revaccination every four months) does not confer an acceptable degree of protection when used in calves under one year of age.

Early in 1970, research will begin on vaccines produced from antigen prepared from rabbit embryo and tissues.

Studies on inactivated vaccines will be assigned the following percentages within the budget for research activities:

1971	31.6%
1972	30.6%
1973	30.2%

3. Modified Live Virus Vaccines

In continuation of the studies which the Center has been carrying out for the last few years on modified live virus vaccines, experiments were made in 1969 on the storage of these vaccines at various temperatures. It was found that vaccines stored at -20°C underwent no changes prejudicial of their infectious titer for unweaned mice, thus confirming earlier observations. Vaccines stored at between 25°C and 26°C show no loss in titer for at least eight days and when stored at 35°C show no loss in infectious titer for 48 hours, but begin to show a loss in titer 72 hours later.

Adaptation and modification of new strains of foot-and-mouth disease virus in embryonated eggs was continued. All strains already modified are being cloned, use being made solely of cloned strains for the study of the modification of new strains so that they can always be initiated with a genetically pure virus. The vaccines produced from cloned strains, such as strain O Cura, subtype O_1 ; strain O Campos, subtype O_1 ; strain A Cruzeiro, subtype A_{24} ; and C Resende, subtype C_3 , are already available and are being used for research on their immunizing ability and pathogenicity.

Because of the possible appearance of new subtypes against which the virus strains already studied may possibly be ineffective, ways and means of rapidly modifying them are being investigated so that vaccines of this type may be used to deal with problems of epizootiological importance arising at any given moment. Thermal gradient techniques are being studied, as are possible mutations produced by chemical agents. Preliminary experiments, especially experiments relating to the effects of hydroxylamine, have been successful. The Center has already published reports on some of these experiments which indicate that it is possible to obtain strains whose pathogenicity has been modified.

Modified live virus vaccine studies have been assigned the following percentages of research activities:

1971	23.8%
1972	23.3%
1973	22.6%

4. Carriers

The problem of the survival of foot-and-mouth disease virus in animals (carriers) and in products derived from them is one of the most important factors affecting international trade, to the prejudice of the economies of South American countries in which livestock production is one of the main sources of foreign exchange.

The Center has been studying the problem and has developed a method for detecting animal carriers. It is being used in connection with the export of Zebu cattle from Brazil for Venezuela. The tests connected with these transactions, made in 1969, have been carried out by experts from the two countries, the Center merely providing advisory services, and they have proved to be feasible and useful. Nevertheless, it should be stressed that with present methods it is not possible to ensure that all carriers will be detected. However, they do make it possible to reduce the risks that are involved in the importation of carrier animals when the authorities in a country decide to run the risk. The principal reason for this situation is our present lack of knowledge about the virus-host relationship and the technique used, which is not sufficiently sensitive to detect minimum amounts of virus. The Center is therefore continuing to seek an effective way of detecting carriers and thus to improve the protocol used for this study. The virus-cell binomium in the host is being studied, as are the conditions regulating the virus-host-environment relationship, since it is not yet known which factor or factors determine that a carrier is capable of transmitting the infection.

In accordance with the Resolution approved by the XI Meeting of the Regional Animal Health Technical Commission (COTERSA), studies will be undertaken in 1970 on the possible role of cattle semen in the carrier system.

These studies on carriers will be assigned the following percentages within the budget for research activities:

1971	12.8%
1972	13.1%
1973	13.9%

5. Other Research Studies

In addition to the research described above, the Center is investigating new cell lines susceptible to foot-and-mouth disease virus; the production of interferon in cell cultures and in susceptible animals; on genetic markers which may characterize virulent and attenuated strains of foot-and-mouth disease viruses, etc. Another subject of the investigation is the influence on these characteristics of the passage of the virus in in vitro cultures and in cattle. Studies will also be undertaken on the effects of polyionic substances in the production of plaques of some strains of vesicular stomatitis virus. New techniques for obtaining plaques in tissue cultures are being studied, as are new immunological methods for the detection of antibodies, etc.

The Center is also giving special attention to the investigation of tests that may be safely and confidently used in evaluating the effectiveness of vaccines against foot-and-mouth disease. Preliminary tests have been begun to determine the Lucam and Fedida K index, using for that purpose animals from enzootic areas selected by reason of sero-protection indices.

The following percentages will be assigned to this aspect of research activities:

1971	12.9%
1972	14.0%
1973	14.3%

To achieve the research targets set, it is estimated that provision for the following international and local staff must be made in the 1971, 1972, and 1973 budgets.

There will be no change in the international staff posts in 1971 in relation to 1970. Local staff will be increased from 118 to 121, that is by three new posts - one secretary and two laboratory assistants.

In 1972 and 1973 there will be no increase in the international staff.

In 1973 the local staff will be increased by two laboratory assistants.

Research Activities Staff:

<u>International Staff</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>
Chief	1	1	1
Virologist	1	1	1
Serologist	2	3	3
Research Officer	3	3	3
Biochemist	1	1	1
Immunologist	1	1	1
Assistant Serologist	1	-	-
Research Assistant	1	1	1
<u>Local Staff</u>	121	121	123

Supplies and Equipment: In 1972 and 1973 there will be a slight increase in this item to allow for increased costs.

Contractual Services: In accordance with the recommendations of the Scientific Advisory Committee and the decision of the Government of Brazil pertaining to the transfer of the Center to Rio de Janeiro, State of Guanabara, no major construction work has been planned, and building activities have been limited to those essential to maintaining the activities of the institution at the maximum level of efficiency with a minimum of investment under this head.

III. Training

The Center provides training for professional personnel of the countries by means of seminars and courses and individual fellowship training.

From the time the Center was established up to 1969, 25 international courses have been conducted, and individual training in various aspects of research, control, and prevention of foot-and-mouth disease has been provided for over 500 veterinarians. The Center provides instruction in laboratory techniques and methods for vesicular diseases and in the planning and administration of preventive and control campaigns (in coordination with the governmental services of some countries), in epidemiology and statistics, in production and control of foot-and-mouth disease vaccines and, as of this year, in animal health planning.

In 1969, the program of courses was carried out as planned. A seminar on the diagnosis of vesicular diseases was held in May-June at the Center for fourteen fellows from twelve countries. In accordance with Resolution IV of the RICA Meeting of May 1969, which recommends that the Bureau "train veterinarians who specialize in quarantine, surveillance and inspection systems in order to prevent the introduction of exogenous diseases", in September a course was held in Guayaquil, Ecuador, on the prevention of foot-and-mouth disease for fifteen fellows from nine Spanish-speaking countries that are free of the disease. In December, seven fellows from five countries attended a similar course presented in the English language at Maracay, Venezuela.

The 1969 national courses were held in cooperation with the veterinary services of two states in Brazil where foot-and-mouth disease campaigns are in full swing. The first, held at Salvador, Bahia, in April, was for 36 veterinarians in addition to a group of students of the Veterinary School of that State. The second was held in Pôrto Alegre, Rio Grande do Sul, for 39 participants.

The Center also cooperated in two epidemiology courses for veterinarians: one was organized by the "Universidad de San Marcos" in Lima, Peru, and the other, by the "Universidad de Antioquia" in Medellin, Colombia. Experts from the Center gave lectures on the epidemiology and control of foot-and-mouth disease.

With regard to individual training, 14 PASB fellowships were granted in 1969 to professional personnel from nine countries. Fellowships from other sources were provided for another seven professional personnel.

With reference to Training Services, it should be mentioned that, at the close of 1969, the first issue of the Informe Epidemiológico del Centro appeared. We hope that it will be published regularly. Furthermore, in the early months of 1970, the Cuadernos resumed publication. In 1968, this publication, which had been issued for some years, was suspended for financial reasons.

Recently purchased equipment and the addition of highly qualified personnel will enable us to carry out efficiently this important informational activity.

The training program for 1970 includes two international seminars: one at Santiago, Chile, on epidemiology and evaluation of campaigns which 12 fellows from South American countries will attend; and another at Montevideo, Uruguay, on vaccine control, for 11 fellows from as many countries. The national courses for personnel from the disease-free countries will be held in Panama, Cuba, and the Dominican Republic.

Twenty individual training fellowships have been programmed; 14 are in research and six are for field work, totalling 80 fellowship/months.

Two international seminars have been planned for 1971, one at Buenos Aires, Argentina, on the production of foot-and-mouth disease vaccines for 12 fellows from 11 countries, and the other at Maracay, Venezuela, on prevention and quarantine for 11 fellows from Spanish-speaking countries which are free of foot-and-mouth disease.

The national courses planned for that year will be held in Georgetown, Guyana; Port of Spain, Trinidad and Tobago, and Jamaica for fellows from other countries of the Caribbean area, as well as from Surinam, French Guiana, and British Honduras.

This explains the increase under Fellowships, since a substantial number of the participants in such national courses will be fellows. Budgetary provision has been made for 24 fellowships totalling 96 fellowship/months for 17 countries.

In 1972 the international seminars will be held in Brazil. One, at the Center, for 10 fellows from 10 South American countries, will deal with the diagnosis of vesicular diseases. The other, to be held in Porto Alegre, Rio Grande do Sul, also for 10 fellows from as many countries, will be on the administration of health campaigns.

In 1972 national courses will be held for countries in the infected area; where they will be held will depend on the status of the respective campaigns.

For 1972 provision has been made for 24 fellowships totalling 96 fellowship/months for 17 countries of both the free and the infected areas.

Under the 1973 international seminars program, one will be held in Rio de Janeiro on foot-and-mouth disease vaccine production methods and the other, on programming and evaluation of campaigns, will be held at Caracas, Venezuela. Both will be for 11 fellows from 10 countries.

In 1973 national courses will be held for Central American personnel and will be held in two countries of that area, probably Panama and Guatemala. Veterinarians from neighboring countries will participate as fellows. Provision has been made for 24 fellowships for personnel from 17 countries.

To achieve the targets of the training program the following staff will be required:

International Staff: No change in 1971 and 1972. The budget for 1973 includes an international post for a translator, in view of the need to expand the program of publications, teaching materials, visual aids, and information.

Local Staff: One clerk and one secretary will be added in 1972.

The following table shows the personnel required for Administrative Services:

<u>International Staff</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>
Chief, Training	1	1	1
Publications Officer	1	1	1
Translator	-	-	1
<u>Local Staff</u>			
Librarian	1	1	1
Secretary ^v	1	2	2
Clerk	1	2	2
TOTALS	<u>5</u>	<u>7</u>	<u>8</u>

IV. Field Advisory Services

1. Countries in the Disease-free Area

In 1969 consultants of the Center attended the Third Meeting of the "Confederación Interamericana de Ganaderos" (CIAGA) in El Salvador, the Special Meeting of OIRSA in Mexico, convened to consider Resolution XVII of the XV Regular Meeting of CIRSA, and the meeting at the technical level of representatives of Colombia and Panama held in Bogota in June in which observers of OIRSA and the Bureau participated. At the above-mentioned Meetings, recommendations of vital importance for preventing the introduction of the foot-and-mouth disease virus into the free area were discussed and approved.

The new draft agreement between Colombia, Panama, OIRSA, and PAHO has already been prepared. The interested parties are considering it and awaiting an appropriate occasion for signing it.

All the countries and territories of that vast area, including French Guiana and Surinam in South America, remain free of foot-and-mouth disease. The reason for this privileged position, apart from natural factors, is primarily the non-importation of animals susceptible to foot-and-mouth disease and of byproducts that can carry the virus from infected areas.

In November 1969 an outbreak of foot-and-mouth disease occurred in Guyana in the Rupununi Savana; the virus was diagnosed as Type O Vallée, subtype O₁. The health authorities of that country, with the advisory assistance of an expert of the Center, adopted the necessary control and quarantine measures; a monovalent inactivated vaccine produced in the Center was used in the affected area. The measures prevented the spread of the virus, which was circumscribed to the area of the initial outbreak.

Among the countries in the disease-free area of the Hemisphere, Canada, United States of America, and Mexico have adequate facilities for protecting their livestock industries against the onslaught of exogenous diseases. The United States of America and Mexico reinforce their measures by means of coordinated programs, particularly through the Mexico-United States Foot-and-Mouth Disease Control Commission. The other countries of the disease-free area are in a less favorable position, primarily because of budgetary problems and lack of appropriate supporting legislation. The Center cooperates with all of them, providing technical advice, training, and diagnostic services for vesicular diseases.

Public Law 90-388 of the United States of America, which was promulgated recently, envisages the possibility of bilateral aid agreements between that country and other countries in the free area - basically Central American countries - similar to that concluded with Mexico.

In 1969, in all the countries from the United States of America to Panama cases of vesicular stomatitis were confirmed. The United States of America and Mexico have their own diagnostic laboratories. The other countries use the services of the Center.

2. Countries of the Infected Area

In recent years the number of foot-and-mouth disease campaigns underway or being prepared in Argentina, Brazil, Chile, Paraguay, Uruguay, and Venezuela have been increasing at a rate that exceeds the most optimistic estimates. In the other infected countries plans for the initiation of national campaigns are being rapidly formulated.

In Argentina the cattle vaccination index remained high, and in the Province of Buenos Aires the vaccination of sheep twice a year was made compulsory. In June, the Argentine Government declared the Province of Chubut free of foot-and-mouth disease; thus all the territory below the Forty-second Parallel is now considered free. The epizootiological situation (relatively low incidence of the disease) was apparently identical to that of previous years. Argentina received a loan of US\$10.5 million from the Inter-American Development Bank for strengthening field and laboratory activities in its foot-and-mouth disease campaign.

In Bolivia, the situation has not changed basically. The Center will study ways and means of continuing its cooperation with the Bolivian authorities in the Cochabamba pilot project, with a view to converting it into an epizootiological and field vaccine evaluation program.

In Brazil, the campaign which began in 1965 is proceeding as scheduled. That country submitted to IDB a national project designed for implementation by phases. Brazil still exports batches of Zebu cattle to Venezuela, and has assumed full responsibility for studies of carriers in that species.

Colombia is preparing a national program which may be financed with IDB assistance. The Center is assisting in the preparation of the plans. IDB approved the action plan for the foot-and-mouth disease campaign prepared by the Ministry of Agriculture of Chile with the assistance of the Center. Consequently, the Bank has made the initial disbursement of the loan approved for that country.

In Ecuador, from March to August of this year, there was a serious nationwide outbreak of foot-and-mouth disease caused by viruses O and A, with predominance of the A type. The Center helped the Ecuadorian authorities to establish control measures.

In Paraguay, the programs of the "Servicio Nacional de Fiebre Aftosa" (SENALFA), are continuing. The Center helped Paraguayan experts to prepare plans for the construction of laboratories and legislation governing the control of foot-and-mouth disease vaccines. In 1970, the country will begin to produce foot-and-mouth disease vaccines.

The plans for a national foot-and-mouth disease campaign to be implemented with IDB financial assistance were completed. The Center helped to prepare the plans.

In Uruguay, in August 1969, the national vaccination program covered the entire national territory. Some 6.5 million doses were administered to an estimated three-quarters of the Uruguayan cattle population of vaccination age. The program does not yet cover sheep and swine. In 1969, the incidence of the disease was extremely low.

Venezuela is continuing the national modified live virus campaign. Final tests for detection of possible carriers among Zebu cattle imported from Brazil are carried out at the Paraguana quarantine post.

Center experts attended the XI Meetings of the Regional Technical Animal Health Commission (COTERSA) which were held, respectively, at Buenos Aires in April and Rio de Janeiro in November. Prior to the first meeting, a special meeting of the Foot-and-Mouth Disease Subcommittee was held to discuss standardization of vaccine quality control methods. In Rio de Janeiro, again prior to the XI Meeting of COTERSA, the Foot-and-Mouth Disease

Subcommittee met at the Headquarters of the Center to discuss problems relating to foot-and-mouth disease vaccines, post-vaccination accidents, diagnosis, type identification, and epizootiology of the disease. The Center organized these meetings and took an active part in them.

Center consultants attended meetings of the Latin American Free Trade Association (LAFTA) held in Montevideo in June.

The Center continues to maintain close cooperation with IDB in the promotion and analysis of foot-and-mouth disease campaign projects. Project officers of the Bank in Paraguay, Chile, and Argentina attended an orientation course held at the Center prior to assuming their duties. During the course they had occasion to discuss with Center experts the programs of the institution and their relation to the projects to which they had been assigned.

As a result of the increase in national campaigns, their integration at the regional level, and the momentum that will undoubtedly be imparted to them by the financial aid of the IDB, it will be necessary periodically to evaluate the results achieved and to seek rapid solutions to epizootiological problems as they arise.

To accomplish the aims set forth above the following personnel will be required:

<u>Field Advisory Services</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>
<u>International Staff</u>			
Chief, Field Advisory Services	1	1	1
Epidemiologists	2	2	2
Area Consultants	5	5	5
Headquarters Consultants			
in Biostatistics	1	1	1
in Administrative Methods	1	1	1
in Vaccine Production and Control	1	1	1
<u>Local Staff</u>			
Secretaries	3	3	3
Clerks	1	2	2
TOTALS	<u>15</u>	<u>16</u>	<u>16</u>

The Field Advisory Services have assigned the following percentages of its budget to these activities:

	<u>1971</u>	<u>1972</u>	<u>1973</u>
	%	%	%
Headquarters Services	61.5	62.6	64.3
Area Consultants	38.5	37.4	35.7

V. Administrative Services

The increases here are due to the regular within-grade increases of local staff and a possible salary increase in the order of 20 per cent for 1971 and 1972 and 10 per cent for 1973, due to the rise in the cost of living.

VI. Common Services

Provision is made for slight increases for supplies and equipment in order to cover possible price increases in products and equipment and for the additional maintenance service that will be needed for the laboratories and certain simple health structures that will be put up in 1971, 1972, and 1973. Part of the maintenance quota of the Government of Brazil will be used for that purpose.

VII. Organization of Meetings

There will be no substantial change in the cost of the Meetings of the Scientific Advisory Committee and the Technical Council in 1971, 1972, and 1973.

PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

BREAKDOWN OF BUDGET FOR 1971

	Office of Director	Research	Training	Field Services	Adminis- tration	Common Services	Meetings	Total	Percentage of Total
Salaries and Allowances	66,980	635,806	53,535	262,281	53,306			1,071,908	76.3
Duty Travel	5,945	17,328	2,435	38,478			39,000	103,186	7.3
Fellowships			44,766					44,766	3.2
Short-term Consultants			2,972				2,000	4,972	0.4
Supplies and Equipment		96,017	14,600	1,000	1,815	28,000		141,432	10.1
Contractual Services		2,700	2,970		1,100	20,000	9,000	35,770	2.5
Publications			3,000					3,000	0.2
T o t a l	72,925	751,851	124,278	301,759	56,221	48,000	50,000	1,405,034	
Percentage of Total	5.2	53.5	8.8	21.5	4.0	3.4	3.6		100.0

PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

BUDGET

1 January - 31 December 1971

<u>Office of the Director</u>		<u>72,925</u>
Salaries and Allowances		66,980
Professional Staff (2)		
Director, P.5		
Administrative Officer, P.3		
Local staff (3)		
Duty Travel		5,945
<u>Research Activities</u>		<u>751,851</u>
Salaries and Allowances		635,806
Professional Staff (11)		
Chief of Laboratories, P.5		
Virologist, P.4		
Serologist, P.4		
Research Officer, P.4		
Biochemist, P.4		
Immunologist, P.4		
Research Officer, P.3		
Research Officer, P.3		
Serologist, P.3		
Assistant Serologist, P.2		
Research Assistant, P.1		
Local Staff (121)		
Duty Travel		17,328
Supplies and Equipment		96,017
Supplies	85,917	
Equipment	10,100	
Contractual Services		2,700

BUDGET FOR 1971 (Cont.)

<u>Training Activities</u>	<u>124,278</u>
Salaries and Allowances	53,535
Professional Staff (2)	
Chief of Training Activities, P.4	
Technical Publications Officer, P.1	
Local Staff (4)	
Duty Travel	2,435
Short-term Consultants	2,972
Fellowships	44,766

	<u>Period</u>	<u>Stipend</u>	<u>Travel</u>
<u>Resident</u>	96 months	17,280	9,930

24 fellows from: Paraguay (2),
 Argentina (1), Chile (1),
 Peru (2), Uruguay (1),
 Bolivia (2), Colombia (2),
 Ecuador (2), Venezuela (2),
 Brazil (2), Guatemala (1),
 Panama (1), Dominican
 Republic (1), Cuba (1),
 Haiti (1), Jamaica (1),
 U.S.A. (1)

Short Courses

Training Course at Maracay, Venezuela	21 days	4,851	2,878
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11 fellows from: Venezuela,
 Mexico, Panama, Guatemala,
 Nicaragua, Costa Rica,
 El Salvador, Honduras,
 Ecuador, Dominican Republic,
 Cuba (One each)

Training Course at Buenos Aires, Argentina	21 days	4,788	2,900
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12 fellows from: Argentina (2),
 Brazil (1), Paraguay (1),
 Bolivia (1), Ecuador (1),
 Colombia (1), Venezuela (1),
 Peru (1), Chile (1), Uruguay
 (1), U.S.A. (1)

BUDGET FOR 1971 (Cont.)

	<u>Period</u>	<u>Stipend</u>	<u>Travel</u>	
<u>National Short-term Courses</u>				
Short course in Georgetown	10 days	348	408	
4 fellows from:				
Surinam (2), French				
Guiana (2)				
Short course in Port of Spain	10 days	555	490	
5 fellows from:				
Barbados (1), Curaçao (1),				
Aruba (1), West				
Indies (2)				
Short course in Jamaica	10 days	176	162	
2 fellows from:				
Haiti (1), British				
Honduras (1)				
Publications				3,000
Supplies and Equipment				14,600
Supplies				
Equipment		10,600		
		4,000		
Contractual Services				2,970
<u>Field Advisory Services</u>				<u>301,759</u>
Salaries and Allowances				262,281
Professional Staff (11)				
Chief of Field Services, P.5				
2 Veterinarians, P.4				
5 Country Consultants, P.4				
Administrative Consultant, P.4				
Biostatistician, P.4				
Vaccine Consultant, P.4				
Local Staff (4)				
Duty Travel				38,478
Supplies and Equipment				1,000

BUDGET FOR 1971 (Cont.)

<u>Administrative Services</u>		<u>56,221</u>
Salaries and Allowances		53,306
Local Staff (8)		
Supplies and Equipment		1,815
Contractual Services		1,100
<u>Common Services</u>		<u>48,000</u>
Supplies and Equipment		28,000
Supplies	24,500	
Equipment	3,500	
Contractual Services		20,000
<u>Meetings</u>		<u>50,000</u>
Technical Council Meeting		34,000
Duty Travel	13,000	
Per Diem	10,000	
Short-term Consultants	2,000	
Interpreters	6,000	
Local Transportation, Printing, and General Services	1,500	
Secretariat Personnel	1,500	
Scientific Advisory Committee		16,000
Duty Travel	10,000	
Per Diem	6,000	
	TOTAL	<u><u>1,405,034</u></u>

PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

1971 BUDGET

RESEARCH ACTIVITIES

	Diagnosis and Reference	Inac- tivated Vaccine	Modified Live Virus Vaccine	Virus Survival	General Research	Total	Percentage of Total
<u>Salaries and Allowances</u>							
International Staff	51,922	51,085	64,428	21,020	24,611	213,966	28.5
Local Staff	73,406	130,186	90,810	65,312	62,126	421,840	56.1
<u>Duty Travel</u>	2,860	4,245	5,401	2,715	2,107	17,328	2.3
<u>Supplies and Equipment</u>	13,000	50,996	17,600	7,050	7,471	96,017	12.8
<u>Contractual Services</u>	540	540	540	540	540	2,700	0.3
 T o t a l	 141,728	 237,852	 178,779	 96,637	 96,855	 751,851	
Percentage of Total	18.0	31.6	23.8	12.8	12.9		100.0

PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

1971 BUDGET

FIELD ADVISORY SERVICES

	Regional Advisers	Advisers at Headquarters	Total	Percentage of Total
<u>Salaries and Allowances</u>				
International Staff	102,486	138,156	240,642	79.7
Local Staff		21,639	21,639	7.2
<u>Duty Travel</u>	13,791	24,687	38,478	12.8
<u>Supplies and Equipment</u>		1,000	1,000	0.3
T o t a l	116,277	185,482	301,759	
Percentage of Total	38.5	61.5		100.0

PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

BREAKDOWN OF BUDGET FOR 1972

	Office of Director	Research	Training	Field Services	Adminis- tration	Common Services	Meetings	Total	Percentage of Total
Salaries and Allowances	75,087	712,000	67,397	268,914	67,270			1,190,668	77.0
Duty Travel	5,945	18,973	500	38,478			30,000	102,896	6.7
Fellowships			40,763					40,763	2.6
Short-term Consultants			3,324				2,000	5,324	0.4
Supplies and Equipment		107,050	20,000	1,000	1,815	31,500		161,365	10.4
Contractual Services		8,451	2,970		1,100	20,000	9,000	41,521	2.7
Publications			3,000					3,000	0.2
T o t a l	81,032	846,474	137,954	308,392	70,185	51,500	50,000	1,545,537	
Percentage of Total	5.2	55.0	8.9	20.0	4.5	3.3	3.1		100.0

PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

BUDGET

1 January - 31 December 1972

<u>Office of the Director</u>	81,032
Salaries and Allowances	75,087
Professional Staff (2)	
Director, P.5	
Administrative Officer, P.3	
Local Staff (3)	
Duty Travel	5,945
<u>Research Activities</u>	846,474
Salaries and Allowances	712,000
Professional Staff (11)	
Chief of Laboratories, P.5	
Virologist, P.4	
Serologist, P.4	
Research Officer, P.4	
Biochemist, P.4	
Immunologist, P.4	
Serologist, P.4	
Research Officer, P.3	
Research Officer, P.3	
Serologist, P.3	
Research Assistant, P.1	
Local Staff (121)	
Duty Travel	18,973
Supplies and Equipment	107,050
Supplies	84,950
Equipment	22,100
Contractual Services	8,451

BUDGET FOR 1972 (Cont.)

<u>Training Activities</u>	<u>137,954</u>
Salaries and Allowances	67,397
Professional Staff (2)	
Chief of Training Activities, P.4	
Technical Publications Officer, P.1	
Local Staff (5)	
Duty Travel	500
Short-term Consultants	3,324
Fellowships	40,763

	<u>Period</u>	<u>Stipend</u>	<u>Travel</u>
<u>Resident</u>	96 months	17,280	9,930

24 fellows from: Paraguay (2),
 Argentina (1), Chile (1),
 Peru (2), Uruguay (1),
 Bolivia (2), Colombia (2),
 Ecuador (2), Venezuela (2),
 Brazil (2), Guatemala (1),
 Panama (1), Dominican
 Republic (1), Cuba (1),
 Haiti (1), Jamaica (1)
 U.S.A. (1)

Short Courses

Course in Rio de Janeiro, Brazil	21 days	4,620	2,879
10 fellows from: Brazil, Uruguay, Paraguay, Argentina, Chile, Ecuador, Bolivia, Colombia, Peru, Venezuela (one each)			
Course in Rio Grande do Sul, Brazil	21 days	3,150	2,904
10 fellows from: Argentina, Brazil, Paraguay, Bolivia, Ecuador, Colombia, Venezuela, Peru, Chile, Uruguay (one each)			

BUDGET FOR 1972 (Cont.)

Publications		3,000
Supplies and Equipment		20,000
Supplies	14,000	
Equipment	6,000	
Contractual Services		2,970
<u>Field Advisory Services</u>		<u>308,392</u>
Salaries and Allowances		268,914
Professional Staff (11)		
Chief of Field Services, P.5		
2 Veterinarians, P.4		
5 Country Consultants, P.4		
Administrative Consultant, P.4		
Biostatistician, P.4		
Vaccine Consultant, P.4		
Local Staff (5)		
Duty Travel		38,478
Supplies and Equipment		1,000
<u>Administrative Services</u>		<u>70,185</u>
Salaries and Allowances		67,270
Local Staff (9)		
Supplies and Equipment		1,815
Contractual Services		1,100
<u>Common Services</u>		<u>51,500</u>
Supplies and Equipment		31,500
Supplies	25,000	
Equipment	6,500	
Contractual Services		20,000

BUDGET FOR 1972 (Cont.)

<u>Meetings</u>		<u>50,000</u>
Technical Council Meeting		34,000
Duty Travel	13,000	
Per Diem	10,000	
Short-Term Consultants	2,000	
Interpreters	6,000	
Local Transportation, Printing and General Services	1,500	
Secretariat Personnel	1,500	
Scientific Advisory Committee		16,000
Duty Travel	10,000	
Per Diem	6,000	
	TOTAL	<u><u>1,545,537</u></u>

PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

1972 BUDGET

RESEARCH ACTIVITIES

	Diagnosis and Reference	Inac- tivated Vaccine	Modified Live Virus Vaccine	Virus Survival	General Research	Total	Percentage of Total
<u>Salaries and Allowances</u>							
International Staff	54,790	54,820	65,600	21,651	24,030	220,891	26.1
Local Staff	87,808	139,446	108,703	79,803	75,349	491,109	58.0
<u>Duty Travel</u>	2,923	4,370	6,544	2,840	2,296	18,973	2.3
<u>Supplies and Equipment</u>	12,198	60,053	16,714	6,642	11,443	107,050	12.6
<u>Contractual Services</u>	2,901				5,550	8,451	1.0
T o t a l	160,620	258,689	197,561	110,936	118,668	846,474	
Percentage of Total	19.0	30.6	23.3	13.1	14.0		100.0

PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

1972 BUDGET

FIELD ADVISORY SERVICES

	Regional Advisers	Advisers at Headquarters	Total	Percentage of Total
<u>Salaries and Allowances</u>				
International Staff	101,467	137,871	239,338	77.6
Local Staff		29,576	29,576	9.6
<u>Duty Travel</u>	13,791	24,687	38,478	12.5
<u>Supplies and Equipment</u>		1,000	1,000	0.3
T o t a l	115,258	193,134	308,392	
Percentage of Total	37.4	62.6		100.0

PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

BREAKDOWN OF BUDGET FOR 1973

	Office of Director	Research	Training	Field Services	Adminis- tration	Common Services	Meetings	Total	Percentage of Total
Salaries and Allowances	79,484	774,906	86,076	300,910	76,526			1,318,802	77.6
Duty Travel	5,945	18,973	500	42,042			30,000	107,360	6.3
Fellowships			46,313					46,313	2.7
Short-term Consultants			3,324				2,000	5,324	0.3
Supplies and Equipment		111,944	22,600	5,500	2,000	36,548		178,592	10.5
Contractual Services		3,500	4,200		1,500	22,000	9,000	40,200	2.4
Publications			3,500					3,500	0.2
T o t a l	85,429	909,323	167,413	349,352	80,026	58,548	50,000	1,700,091	
Percentage of Total	5.0	53.5	9.8	20.6	4.7	3.5	2.9		100.0

PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

BUDGET

1 January - 31 December 1973

<u>Office of the Director</u>		<u>85,429</u>
Salaries and Allowances		79,484
Professional Staff (2)		
Director, P.5		
Administrative Officer, P.3		
Local Staff (3)		
Duty Travel		5,945
<u>Research Activities</u>		<u>909,323</u>
Salaries and Allowances		774,906
Professional Staff (11)		
Chief of Laboratories, P.5		
Virologist, P.4		
Serologist, P.4		
Research Officer, P.4		
Biochemist, P.4		
Immunologist, P.4		
Serologist, P.4		
Research Officer, P.3		
Research Officer, P.3		
Serologist, P.3		
Research Assistant, P.1		
Local Staff (123)		
Duty Travel		18,973
Supplies and Equipment		111,944
Supplies	82,944	
Equipment	29,000	
Contractual Services		3,500

BUDGET FOR 1973 (Cont.)

<u>Training Activities</u>	<u>167,413</u>
Salaries and Allowances	86,976
Professional Staff (3)	
Chief of Training Activities, P.4	
Technical Translator, P.2	
Technical Publications Officer, P.1	
Local Staff (5)	
Duty Travel	500
Short-term Consultants	3,324
Fellowships	46,313

	<u>Period</u>	<u>Stipend</u>	<u>Travel</u>
<u>Resident</u>	96 months	19,007	10,923

24 fellows from: Paraguay (2),
 Argentina (1), Chile (1),
 Peru (2), Uruguay (1), Bolivia (2)
 Colombia (2), Ecuador (2),
 Venezuela (2), Brazil (2),
 Guatemala (1), Panama (1)
 Dominican Republic (1), Cuba (1),
 Haiti (1), Jamaica (1), U.S.A (1)

Short Courses

Training Course at Rio de Janeiro, Brazil	21 days	4,851	2,879
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11 fellows from: Brazil (2),
 Uruguay, Paraguay, Argentina,
 Chile, Bolivia, Peru, Ecuador,
 Venezuela, Colombia (one each)

Training Course at Caracas, Venezuela	21 days	5,775	2,878
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11 fellows from : Venezuela (2),
 Argentina, Brazil, Paraguay,
 Bolivia, Ecuador, Colombia,
 Peru, Chile, Uruguay (one each)

BUDGET FOR 1973 (Cont.)

Publications		3,500
Supplies and Equipment		22,600
Supplies	14,800	
Equipment	7,800	
Contractual Services		4,200
<u>Field Advisory Services</u>		<u>349,352</u>
Salaries and Allowances		300,910
Professional Staff (11)		
Chief of Field Services, P.5		
2 Veterinarians, P.4		
5 Country Consultants, P.4		
Administrative Consultant, P.4		
Biostatistician, P.4		
Vaccine Consultant, P.4		
Local Staff (5)		
Duty Travel		42,942
Supplies and Equipment		5,500
<u>Administrative Services</u>		<u>80,026</u>
Salaries and Allowances		76,526
Local Staff (10)		
Supplies and Equipment		2,000
Contractual Services		1,500
<u>Common Services</u>		<u>58,548</u>
Supplies and Equipment		36,548
Supplies	27,500	
Equipment	9,048	
Contractual Services		22,000

BUDGET FOR 1973 (Cont.)

<u>Meetings</u>		<u>50,000</u>
Technical Council Meeting		34,000
Duty Travel	13,000	
Per Diem	10,000	
Short-Term Consultants	2,000	
Interpreters	6,000	
Local Transportation, Printing and General Services	1,500	
Secretariat Personnel	1,500	
Scientific Advisory Committee		16,000
Duty Travel	10,000	
Per Diem	6,000	
	TOTAL	<u><u>1,700,091</u></u>

1973 BUDGET

RESEARCH ACTIVITIES

	Diagnosis and Reference	Inac- tivated Vaccine	Modified Live Virus Vaccine	Virus Survival	General Research	Total	Percentage of Total
<u>Salaries and Allowances</u>							
International Staff	60,545	60,578	64,355	28,408	30,783	244,669	26.9
Local Staff	95,034	148,672	115,029	87,028	83,574	530,237	58.3
<u>Duty Travel</u>	2,923	4,370	6,544	2,840	2,296	18,073	2.1
<u>Supplies and Equipment</u>	13,176	61,032	17,693	7,621	12,422	111,944	12.3
<u>Contractual Services</u>	700	700	700	700	700	3,500	0.4
T o t a l	172,378	275,352	205,221	126,597	120,775	909,323	
Percentage of Total	19.0	30.2	22.6	13.9	14.3		100.0

PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

1973 BUDGET

FIELD ADVISORY SERVICES

	Regional Advisors	Advisers at Headquarters	Total	Percentage of Total
<u>Salaries and Allowances</u>				
International Staff	111,028	155,247	266,275	76.2
Local Staff		34,635	34,635	9.9
<u>Duty Travel</u>	13,791	29,151	42,942	12.3
<u>Supplies and Equipment</u>		5,500	5,500	1.6
T o t a l	124,819	224,533	349,352	
Percentage of Total	35.7	64.3		100.0

PORTION OF THE QUOTA CONTRIBUTIONS OF GOVERNMENTS FOR FINANCING THE PROPOSED PROGRAM
AND BUDGET OF THE PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER
(PART VI OF THE PAHO REGULAR BUDGET)1/

<u>Country</u>	<u>OAS Scale</u> %	<u>1971</u> US\$	<u>1972</u> US\$	<u>1973</u> US\$
Argentina	7.06	98,330	108,164	118,979
Barbados	0.08	1,114	1,226	1,348
Bolivia	0.31	4,318	4,749	5,224
Brazil	6.76	94,151	103,567	113,925
Chile	1.74	24,233	26,658	29,325
Colombia	1.52	21,170	23,287	25,616
Costa Rica	0.31	4,318	4,749	5,224
Cuba	1.44	20,056	22,062	24,269
Dominican Republic	0.31	4,318	4,749	5,224
Ecuador	0.31	4,318	4,749	5,224
El Salvador	0.31	4,318	4,749	5,224
Guatemala	0.38	5,293	5,822	6,404
Haiti	0.31	4,318	4,749	5,224
Honduras	0.31	4,318	4,749	5,224
Jamaica	0.38	5,293	5,822	6,404
Mexico	6.60	91,922	101,116	111,227
Nicaragua	0.31	4,318	4,749	5,224
Panama	0.31	4,318	4,749	5,224
Paraguay	0.31	4,318	4,749	5,224
Peru	0.75	10,446	11,490	12,639
Trinidad & Tobago	0.31	4,318	4,749	5,224
United States of America	66.00	919,232	1,011,157	1,112,272
Uruguay	0.68	9,471	10,418	11,460
Venezuela	3.20	44,569	49,027	53,929
	<u>100.00</u>	<u>1,392,778</u>	<u>1,532,055</u>	<u>1,685,261</u>

Other Member and Participating Governments

	<u>Equivalent</u> <u>Percentages</u>			
France	0.22	3,064	3,371	3,708
Guyana	0.21	2,925	3,217	3,539
Kingdom of the Netherlands	0.19	2,646	2,911	3,202
United Kingdom	0.26	3,621	3,983	4,381
Subtotal		<u>12,256</u>	<u>13,482</u>	<u>14,830</u>
TOTAL		<u>1,405,034</u>	<u>1,545,537</u>	<u>1,700,091</u>

1/ The Pan American Health Organization, in accordance with its constitutional provisions, applies the assessment scale adopted by the Council of the Organization of American States.

PROGRAM AND FUTURE FINANCING FOR THE
PAN AMERICAN ZONOSSES CENTER

(Document RICA3/14)



PAN AMERICAN HEALTH ORGANIZATION



WORLD HEALTH ORGANIZATION

III INTER-AMERICAN MEETING ON FOOT-AND-MOUTH DISEASE AND ZONOSSES CONTROL

BUENOS AIRES, ARGENTINA, 14-17 APRIL 1970

Draft Agenda Item 9

RICAZ3/14 (Eng.)
30 March 1970
ORIGINAL: SPANISH

PROGRAM AND FUTURE FINANCING FOR THE PAN AMERICAN ZONOSSES CENTER

*Report on Zoonoses Control as an Integral
Part of Agrículture and Livestock
Development and the Role of the
Pan American Zoonoses Center*



PAN AMERICAN HEALTH ORGANIZATION
Pan American Sanitary Bureau - Regional Office of the
WORLD HEALTH ORGANIZATION

REPORT ON ZONOSSES CONTROL AS AN INTEGRAL PART OF
AGRICULTURE AND LIVESTOCK DEVELOPMENT AND THE ROLE OF
THE PAN AMERICAN ZONOSSES CENTER

March 1970

Pan American Health Organization
Pan American Sanitary Bureau, Regional Office of the
World Health Organization
Washington, D. C.

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It is my pleasure to submit this Report of the Mission of Drs. Juan T. Bowler, Enrique García Mata and Rubén Lombardo in partial compliance with the request of the II Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control as set forth in Resolution VIII.

During the course of visits with Agriculture and Health authorities in 15 countries, the significance of the zoonoses for human health and for economic development was recognized and discussed. The role of the Pan American Zoonoses Center in education, research, and advisory services was clearly identified. Consideration was also given to the possibility that the Governments might provide necessary funds to expand the Center and to extend its activities to fulfill its new responsibilities.

The first section of the Report summarizes the problem of the major zoonoses in the Americas, describes the programs of development of the livestock industry and mentions the economic significance of these diseases. Attention is also given to the possible risks of spread as a result of increases in animal populations and international shipment thereof.

The Report also includes descriptions of meetings with officials and records their views concerning the most important problems in their countries. The effect of zoonoses on human health and on agricultural development are summarized, as well as the areas on which the countries would like the advice and assistance of the Pan American Zoonoses Center. Included also are letters of concurrence from Agricultural authorities of the Governments concerning financial assistance to the Center, and a copy of the budget proposals.

In the very near future we expect to receive the opinion of the Ministries of Agriculture and Health not yet visited, with regard to the present and future of the zoonoses and what they expect from the Center.

I would like to thank the Governments for the many courtesies to the members of the Mission, the information which they provided and their constructive suggestions for the future activities of the Pan American Zoonoses Center.

Abraham Horwitz
Director

INTRODUCTION

The II Inter-American Meeting at the Ministerial Level on Foot-and-Mouth Disease and Zoonoses Control, held in Rio de Janeiro, Brazil in May 1969, recommended to the Governments (Resolution VIII) that they make provision in their plans for agricultural development for programs to control brucellosis, bovine tuberculosis, and vampire bat rabies. It was requested by the same Resolution that the Pan American Health Organization submit to the III Inter-American Meeting at the Ministerial Level on Foot-and-Mouth Disease and Zoonoses Control, to be held in April 1970 in Buenos Aires, Argentina, "a study on the assistance the Pan American Zoonoses Center could render to the agricultural and stock-raising agencies of the Americas in their efforts to control zoonoses, and on how those agencies could collaborate in the work program of the Center." It also decided to "request the Governments to study the possibility of providing the Pan American Zoonoses Center with the necessary funds to expand and extend its activities for the benefit of the economy and the health of the peoples of the Americas."

To implement that resolution, the Director of the Pan American Sanitary Bureau, Dr. Abraham Horwitz, appointed a Mission to visit various countries in the Americas to discuss with the Ministers of Agriculture and their staffs the status of the most important zoonoses and ways of carrying out control programs with the expanded assistance of the Pan American Zoonoses Center. The Mission was requested to discuss with the Ministers the possibility of a contribution by agricultural and livestock-producing agencies towards financing the expansion of the Center's activities in support of the campaigns needed both at the national and the intraregional level, to reduce the impact of the main zoonoses on national economy, development plans, and health.

The Mission also discussed the programs of the Center with the public health authorities of the countries and the United Nations Resident Representatives.

In fulfilling the responsibility of the task of the Mission, we are pleased to submit the following report about our consultations, analysis of the present situation, results obtained by the Mission, and our conclusions.

Enrique García Mata

Juan T. Bowler

Rubén A. Lombardo

THE PRINCIPAL ZONOSSES IN THE AMERICAS: THE PROBLEM

Some of these diseases are major problems not only for human health but also for the national economy and livestock development. The zoonoses are a significant factor in maintaining diminished production and productivity of livestock which persists at a level below that required to satisfy the needs of a continually expanding population. The main zoonoses impede the international marketing of animals and animal products, thereby hindering livestock development and restocking plans.

In Latin America, the animal industry is perhaps the greatest investment next to farm real estate. Excluding poultry, there are approximately 530 million animals in the Region: 250 million head of cattle, 130 million sheep, 100 million swine, and 42 million goats. Annual milk production is about 7.5 million tons. Latin American countries export slightly more than 25 per cent of the world exports of beef. In recent years, meat exports have become a new source of foreign exchange in Colombia, Panama, and almost all the Central American countries. This has helped to diversify production and has encouraged the introduction of better methods of livestock production. In addition to meat, some countries export cattle on the hoof as an important item in intraregional and interregional trade.

Sheep raising is a substantial source of income for Argentina, Uruguay, and Chile, which export a considerable amount of wool and mutton. Presently, Argentina is exporting sheep on the hoof to the Near East. Sheep farming is also an important economic function in Ecuador, Bolivia, Guatemala, and many farming communities in mountainous areas.

The swine-farming industry is also essential in most of the countries, especially the products used for domestic consumption.

The available trends indicate that by 1980 the population of Latin America will be 370 million, approximately 93 million more than in 1970. To maintain the present supply of meat and milk, it will be necessary to increase the overall production of each of these foods by several million tons each year. If we add to this the increases needed to enable the exporting countries to reach their target of increasing sales abroad, we can appreciate the socioeconomic importance of the zoonoses. The fact should be considered that they are a permanent hazard in diminishing production which affects the ability of these countries to compete in the world market where health matters are becoming steadily more important.

The information collected by the Mission in the various countries again reveals that brucellosis, bovine rabies, tuberculosis, and hydatidosis are the main zoonoses, judging by the economic losses they cause and their harmful effect on human health. Salmonellosis, for example, has worldwide importance because of its food-borne transmission, especially in meat products.

In Colombia, Ecuador, Venezuela, the Central American countries, and Mexico equine encephalitis is of great concern, especially with the major outbreaks of Venezuelan equine encephalitis that occurred in 1969 and early 1970.

In another group of countries, particularly in the Central American countries, there is a high incidence of cysticercosis in swine, and the information available about cysticercosis in cattle shows that it is widespread.

Brucellosis

From the financial standpoint bovine brucellosis is the most important zoonosis. A recent estimate indicates that the direct losses resulting from this disease in Argentina are approximately 40 million pesos (approximately US\$115 million) every year.

A study in Venezuela shows that annual losses in milk and meat production attributed to the disease are about 63,622,500 bolivars (approximately US\$13,300,000).

In Chile direct losses due to bovine brucellosis, in terms of reduced milk and calf production, are estimated at 33,116,800 escudos (US\$2,800,000).

In Costa Rica, a recent estimate reveals that bovine brucellosis causes annual losses in the order of 24 million colones (US\$3.5 million).

In Mexico, it was established several years ago that the losses caused by the disease amounted to approximately 250 million pesos (US\$20 million).

Accordingly, in these five countries, which together account for less than half of the cattle production of Latin America, direct losses due to bovine brucellosis amount to about US\$155 million each year. The additional indirect losses to the total agricultural sector from this loss of animal production has never been estimated.

Among the efforts being undertaken or planned for the control or eradication of brucellosis are the following:

The unanimous opinion of the animal health authorities in all of the countries is that first priority should be given to the control of this disease.

Argentina has just approved regulations making brucellosis vaccination compulsory, which is the basis for the national campaign programmed to begin this year. Brazil announced that it would also make vaccination compulsory in the State of Rio Grande do Sul and possibly in the States of Bahia and Espiritu Santo.

Venezuela and Colombia are completing the final preparations on applications to be submitted to the Inter-American Development Bank (IDB) for financial assistance to enable them to conduct foot-and-mouth disease and brucellosis control campaigns. Ecuador will include a brucellosis control project, together with a foot-and-mouth disease control project, in an application for financial assistance to be submitted to IDB. Mexico will begin its nationwide control program in April 1970. In Chile, control activities will begin shortly in the southern zone of the country as part of a program against reproductive diseases.

Uruguay began a nationwide campaign in 1964, the first stage of which will last for several years. It comprises the vaccination of calves with strain 19 vaccine. The second stage will include the elimination of reactors.

In Central America, mention should be made of the resolution approved by the Ministers of Agriculture of the Region at the meeting of OIRSA (Regional International Animal Health Agency), held in 1969 in Guatemala City, concerning campaigns against brucellosis and the possibility of requesting financial assistance from IDB. Costa Rica is presently making preparations to submit a request of that kind.

In connection with current brucellosis control activities or those scheduled to begin in the various countries mentioned above, it was pointed out to the Mission that assistance from the Pan American Zoonoses Center was needed in planning, executing, evaluating, and coordinating the campaigns, as well as in diagnosis, production, and control of antigens and vaccines and the training of Government personnel. Also, it is significant to mention that in several countries swine brucellosis is a major problem and that goat brucellosis represents a serious public health problem in Mexico, Peru, and Argentina. An increase in research will be necessary to achieve better control of brucellosis in these two species.

Bovine Rabies

Rabies transmitted to cattle by vampire bats depicts another cause of considerable livestock losses, which was emphasized to the Mission on repeated occasions. Its presence has been confirmed in all but two or three countries in the Americas. It is a major problem in Bolivia, Brazil, Mexico, Paraguay, and Venezuela and the northern part of Argentina.

Bolivia hopes to increase meat production in the Beni area through a livestock development program financially supported by the World Bank and also in the southeastern area called the Bolivian Chaco, with assistance from IDB. It is precisely in the eastern areas, especially in Beni, that bovine rabies causes serious losses. It is a major animal health problem which limits livestock production.

In Paraguay, bovine rabies is a matter of great concern to the Ministry of Agriculture and the livestock owners, because of the large-scale outbreaks that occur in different parts of the country.

In Mexico, paralytic rabies in cattle has led to the initiation of two cooperative projects. One is for field and laboratory research with the assistance of the United Nations Development Program, and the other is for vampire bat control with the assistance of the Agency for International Development of the United States of America. It has been estimated that each year Mexico loses about 100,000 animals from this disease, at a cost of more than US\$10 million.

It has been estimated that the losses due to vampire bat rabies in the affected countries of the Americas are approximately US\$50 million a year.

The high cattle mortality due to paralytic rabies is also of considerable social significance, since it usually occurs in countries where the per capita consumption of meat is lower than what is considered to be adequate.

Bovine Tuberculosis

This disease has a high prevalence in the countries of South America. The highest infection rates occur in dairy cattle in the milk sheds of the large cities. The problem is less important in beef cattle. The infection rate is considered to be very low in some countries, especially in areas of extensive breeding activities. However, high infection rates are occasionally found in beef cattle, according to records of condemnations in some slaughterhouses.

On the basis of a recent sample survey covering 11 areas in Argentina, it has been estimated that annual losses due to bovine tuberculosis amount to 21,000 million pesos (about US\$60 million each year).

In Chile it was revealed that the bovine tuberculosis infection rate is high in all parts of the country where there is a predominance of cattle intended for both production of milk and meat, and where intensive or semi-intensive farming accelerates the spread of the disease.

In Peru, in the milk sheds of the city of Lima, where cattle are stalled close together, tuberculin testing reveals high rates of positives.

Relative to tuberculosis eradication campaigns, in 1954 Venezuela began a nationwide campaign for the gradual eradication of tuberculosis and has succeeded in reducing the overall infection rate from 3.5 per cent to 0.10 per cent. The beneficial results obtained are reflected in an estimate of the losses in a region where the eradication program has made good progress. At the beginning of the program in 1954, losses were estimated at 3,528,000 bolivars (US\$784,000); by 1961 they were reduced to 401,100 bolivars (US\$85,340); and by 1969 to 200,000 bolivars (US\$44,444). From the public health standpoint, it should be pointed out that a simultaneous reduction occurred in human cases of tuberculosis caused by the bovine bacillus, from 4.88 per cent in the period 1953-1956 to only 0.11 per cent in 1966.

In 1963, Uruguay embarked on a tuberculosis eradication campaign in the milk sheds of Montevideo with subsidies paid to producers who participated in the program, and at the present time covers approximately 70 per cent of the dairies in the area. It was estimated that, before the campaign, the rate of tuberculin positive in animals was between 10 per cent and 15 per cent, and that it declined to less than 1 per cent in establishments that participated in the above-mentioned program.

Panama was also successful in its bovine tuberculosis control campaign in the dairy cattle belonging to farms supplying Panama City and the Canal Zone.

In Peru, in the region of Arequipa, a tuberculosis eradication campaign on dairy cattle was conducted and achieved very satisfactory results.

Hydatidosis

The high prevalence of this zoonosis is found in the South American countries that have large numbers of sheep, such as Argentina and Uruguay; in the sheep-raising regions of the State of Rio Grande do Sul in Brazil; in the south of Chile; and in the mountains of Peru.

The problem is very serious in Uruguay. An investigation of cattle originating from different areas of the country and slaughtered in a national meat-packing plant showed that 61.23 per cent of the animals had hydatid cysts. Also, according to observations made on adult sheep by some veterinarians, the infection rate was as high as 1.00 per cent.

The number of reported human cases of hydatidosis occurring each year in Uruguay is between 550 and 660. Most patients are between 20 and 40 years of age and come from the areas that possess large numbers of sheep. Sheep, furthermore, are the major source of the meat in livestock establishments where a raw offal is normally used for feeding dogs, thus maintaining the cycle of the disease.

The Honorary Hydatidosis Control Commission of Uruguay reported that 995 patients spent a period of 34,262 days of hospitalization from the disease. The social and economic impact must be kept in mind, considering that a large group of patients requiring corrective surgery are left with various degrees of permanent disability.

In Chile, the disease is also of major concern to the health and agricultural authorities. The provinces most affected are Magallanes, Chiloe, and Aysen, in the south of the country.

In Argentina, the prevalence of hydatidosis is estimated to be 15 per cent in cattle, 20 per cent in sheep, and 10 per cent in swine. In Peru, surveys made in the Sierra to determine the rate of Echinococcus granulosus in dogs showed that between 39 per cent and 60 per cent of them were positive. In the area of the Mantaro River Valley, more than 300 human cases of hydatidosis requiring surgery are registered each year.

Although it is difficult to accurately determine the financial losses caused by hydatidosis, diminished growth and fattening of animals and underproduction of milk and wool is quite evident and considerable.

Losses caused by the condemnations of offal, particularly in livers, are abundant. For example, in slaughterhouses in Uruguay more than 60 per cent of all livers are condemned because of hydatid cysts.

Argentina is developing a pilot program for hydatidosis control in the province of Neuquén. It will be a combined effort of the Secretariats of State of Public Health and of Agriculture, with technical assistance from the Pan American Zoonoses Center.

In Uruguay, the National Hydatidosis Control Commission is completing the plan of operations for a pilot control area, which will include the entire department of Flores in the central-southern sector of the country.

In Chile, the authorities indicated their desire to promote and develop a pilot control project in the province of Magallanes, for which the assistance of the Pan American Zoonoses Center was requested.

LIVESTOCK DEVELOPMENT AND ZONOSSES PROGRAMS

In virtually all of the countries, livestock development programs are beginning, and some of these include land settlement schemes and the restocking of new areas. The objective is similar in all cases: to find a way of increasing production; to improve the productivity rate per unit of area; and, in the exporting countries, to increase the balances available for marketing abroad. These programs for the expansion and the intensification of livestock raising are based on the use of a credit policy aimed at improving pastures, creating fodder reserves, fertilization and subdivision of grazing lands, construction of better facilities for handling animals, and, in certain areas, improving the availability of water for animals.

In some instances these programs are combined with activities for the improvement of seeds, livestock research, and the expansion of agriculture extension services to producers.

Projects for the development of beef cattle are being carried out in Argentina, Bolivia, Brazil, Chile, Costa Rica, Ecuador, Guatemala, Paraguay, and Uruguay, with the assistance of the World Bank.

The Inter-American Development Bank has granted a number of loans to the agricultural sector for activities directly related to livestock production.

Sizable investments are being made in the meat-packing industry in order to establish new facilities and modernize and expand others, in accordance with the requirements of the external market for meat prepared or presented in different ways. Large-scale investments are also being made with the prospect of meeting with the health requirements of importing countries.

Uruguay, for example, has just received a loan from IDB in the amount of US\$15 million, to be used in the meat-packing industry.

In addition to factors relating to the feeding, selection, and handling of animals which limit livestock production, the high prevalence of animal diseases is also responsible for low reproduction, and consequently for the large number of female animals left temporarily or permanently sterile, resulting in a low level of production of meat, milk, and wool. Accordingly, the large cattle mass required in many countries to produce one ton of meat clearly points to the need for programs for the improvement of grazing land, and the selection and handling of cattle to be simultaneously supported and coordinated with animal health activities. Especially significant is the promotion of campaigns against brucellosis, tuberculosis, and bovine rabies, which together with foot-and-mouth disease are responsible for a continuing fall in production. Such a health policy, which would be an integral part of development plans, is essential if better results are to be obtained from the considerable investments which the countries and international credit institutions are making in this field. The assistance being given by IDB for financing foot-and-mouth disease campaigns can also be directed toward control programs for brucellosis, tuberculosis, and bovine rabies, thereby accelerating the application of that policy which is so essential if the goals of development are to be achieved.

INTERNATIONAL MARKETING OF MEAT AND LIVE ANIMALS AND THE ZONOSSES

a) Meat Exports

The export of meat and animals is of major importance to the economy of the countries of the Americas, and to some of them it is one of the major sources of foreign exchange.

The Economic Commission for Latin America (ECLA) estimates that meat exports from the member countries of the Latin American Free Trade Association (LAFTA) account for just over 25 per cent of world trade in beef, with a monetary value exceeding US\$450 million. Their main market is Western Europe,

especially the member countries of the European Economic Community. Great Britain is continuing its traditional purchases and Spain is expanding them. Some of the countries of Eastern Europe and the Middle East have begun to buy from South America in recent years.

In 1969 Argentina, which is one of the main exporting countries, sold meat from 2,460,000 cattle and about 3.5 million sheep, besides pork and horse meat. In the same year, Uruguay, which is the second largest exporter of meat, released in the world market about 115,000 tons of meat. The other exporting countries in South America are Brazil, Colombia, and Paraguay.

Panama, most of the Central American countries, Mexico, and Haiti export meat to the United States of America, which makes an important contribution to their respective economies. In 1969 those countries had the following meat export quotas:

Mexico	33,900	tons
Nicaragua	19,050	"
Costa Rica	17,050	"
Guatemala	10,900	"
Honduras	7,050	"
Panama	2,650	"
Haiti	<u>1,050</u>	"
	91,650	tons

In a recent study published by ECLA, entitled "Present Situation Problems and Prospects of the Trade in Beef in the Countries of LAFTA," it was estimated that, with the expansion and the improvement of grazing lands, the reduction in mortality, the increase in the birth rate, and the use of better administrative practices, an annual increase of 3 per cent could be obtained in numbers of cattle and a 3.5 per cent annual increase in production. Assuming these requirements were satisfied, there would be available in 1985 an export balance of 2,580,000 tons of meat (including the equivalent in meat of animals exported on the hoof), which would mean an increase of 158 per cent over the average for the period of 1962-1966.

These projections can be realized if at the same time the LAFTA countries take the necessary measures for maintaining and increasing their ability to compete in world trade which is increasingly dependent on animal and industrial hygiene considerations.

It must be kept in mind that some meat-importing countries that are members of the European Common Market have indicated, through recent missions that have visited the exporting countries of South America, that new health regulations pertaining to importations regarding brucellosis and tuberculosis will be strengthened in the future.

The meat-packing plants for the export trade must comply with a number of sanitation and health measures to achieve the objectives of preventing the transmission of zoonoses. In some European countries and in the United States of America, an increase in the number of outbreaks of food-borne infectious diseases and food poisoning have been confirmed. Salmonellosis transmitted by meat and eggs is regarded as one of the most important zoonoses. Outbreaks of that disease have led to the suspension of imports or the closing of slaughterhouses. Concern over this problem is the basic cause for the present requirements concerning hygienic certification, operation, and inspection of meat-exporting plants.

In the course of the visits to the countries, the Mission had an opportunity to discuss the activities begun by the Pan American Zoonoses Center in food microbiology and hygiene. A number of countries requested the Center to provide them with training and assistance on standards and standardization of methods to be used in laboratories responsible for microbiological control in slaughterhouses and meat-processing establishments.

b) Export and Import of Animals

There is a considerable interregional and intraregional trade in live animals. The main exporting countries are Mexico and Argentina, and the main importing countries are Chile, Peru, and Venezuela in South America and the United States in North America. Some Middle Eastern countries are importing sheep from South America, primarily from Argentina and Uruguay. Spain and Italy have purchased fat stock and beef cattle as well as small numbers of dairy cattle.

Although many animals exchanged in interregional trade are destined for slaughter, many are for breeding and reproduction, which supports live-stock development programs. It is in connection with animals for this purpose that brucellosis and tuberculosis are a matter of great concern. From September 1969 to August 1970, Mexico will sell to the United States 668,000 steers and 332,000 heifers between the ages of 8 and 10 months. Since 1 August 1969, the United States has required that all animals in each group of cows or bulls to be exported have negative results to two serological examinations for brucellosis conducted at least 30 to 90 days apart. The whole group shall be rejected if in the final examination at least one animal is positive to the test. This means that cattle-raising establishments which wish to export breeding heifers or bulls must maintain a rigorous brucellosis preventive program.

Colombia and Venezuela are taking measures to coordinate the movement of live animals between the two countries in order to prevent reinfections, and to reinforce the brucellosis campaigns which the two countries plan to begin very shortly.

In Peru, the importation of tuberculosis- and brucellosis-free cattle is considered to be very important for maintaining existing programs. In Arequipa, for example, an agricultural rehabilitation program is beginning, based upon the progressive extension of an irrigation system. As a result, about 70 to 80 thousand hectares will become available for livestock production in the future. The success of that plan depends on the importation of dairy cattle which are deficient in the country. These irrigated areas must be planted with alfalfa which will be utilized for feed to produce milk. In that area, there are a considerable number of dairy cattle that are subject to strict animal health measures.

Trade in animals between countries is frequently necessary in order to introduce new breeds for cattle-raising in certain areas or to incorporate specified genetic factors into native cattle. For example, Paraguay imports zebu cows and bulls from Brazil, and Colombia recently exported zebu cattle to the north of Argentina, which like Uruguay in turn exports a large number of bulls and cows to other countries.

As a result of this active trade in animals, the Regional Technical Animal Health Commission made up of representatives of Argentina, Brazil, Bolivia, Chile, Paraguay, and Uruguay has endeavored to coordinate the health aspects of the import trade, and to standardize diagnostic methods and interpretation criteria for the detection of brucellosis and tuberculosis. For that purpose, it requested and obtained assistance from the Pan American Zoonoses Center on a number of occasions. It was emphasized to the Mission by the authorities in many countries that the Center should continue expanding as a coordinating agency by providing more advisory services in connection with aspects of such importance to interregional and intraregional trade.

FUTURE RISKS OF A FURTHER SPREAD OF THE ZOOSES

There are good reasons for predicting that the cattle population will continue to increase at a faster rate than at present because of increased modernization of livestock production and additional land settlement programs in various countries with extensive tropical areas. Highways and transport methods will also increase and improve, producing a greater movement of animals both within and between countries. As the total animal population grows and yields a higher animal density per acre, the movement of animals will increase, thereby accentuating the possibility of spreading the zoonoses. Sufficient evidence is available in the world to justify that livestock expansion and intensification has brought with it an increase in prevalence and diffusion of many diseases. The milk sheds of the large cities with their high rates of animal brucellosis and tuberculosis are good examples.

In parts of Chile where most livestock farming is intensive, the spread of diseases is believed to have been enhanced through the system of irrigation and water circulation prevailing in 70 per cent of the livestock establishments in the central region. In some tropical and jungle areas of the Hemisphere, bovine rabies is a problem which has been getting worse as the number of cattle has increased.

The increase in development of livestock programs and importations necessary to achieve it will carry with them certain health risks; however, the establishment of adequate veterinary medical services supported by necessary financial resources and proper legislation will reduce these risks to a minimum. For example, in Colombia a program for encouraging sheep-raising has been started with the support of the textile industry of the country to make better use of certain regions. The presence of the hydatidosis parasite has not yet been confirmed in dogs in that country. However, the need to import sheep and sheep dogs of a certain quality, which are usually obtained from countries in which hydatidosis exists, may open the way to the introduction of this disease into Colombia, and such procedures may allow spread to other animal species and to man.

Significantly, the successful intensification of livestock-raising activities calls for the greatest possible effort to control brucellosis, tuberculosis, bovine rabies, hydatidosis, and other zoonoses through the closest possible coordination of animal health activities at the regional level. The Pan American Zoonoses Center will have to continue to expand its activities to the extent necessary to support and coordinate future activities for the control and eradication of zoonoses in the Hemisphere.

COUNTRY VISITS: RESULTS AND CONCLUSIONS

Brazil

In the course of meetings with the federal animal health authorities, we explained the purpose of the Mission and discussed in detail the problem of the principal zoonoses as well as future assistance by the Center in support of programs under way and planned.

From the statements made by the experts and the documentation handed to the Mission, it would appear that the general situation with respect to the major zoonoses is as follows:

Relative to brucellosis, voluntary programs are being conducted in the principal milk sheds through the Animal Health Technical Protection Team and the Ministries of Agriculture of the various states. Five private laboratories are producing strain 19 vaccine, but antigens for diagnostic tests are being produced exclusively in Government laboratories. It will be necessary to train more experts in the production and control of brucellosis antigens and vaccines.

The Minister of Agriculture, Mr. L. Cirne Lima, told us that in 1970 a brucellosis campaign is planned to start in the State of Rio Grande do Sul, a control program in the State of Bahia, and a pilot program in the State of Espiritu Santo.

At a meeting with technical personnel, the Mission was informed that in bovine rabies the principal difficulty in dealing with the disease is that of

securing the availability of vaccines that produce good immunity. The assistance of the Center is considered essential in carrying out more research on different types of vaccines and on the effectiveness of these vaccines under field conditions.

Bovine tuberculosis is principally found in the milk sheds of the various states, where examinations have revealed a high rate of tuberculin reactors.

During the meeting, the sanitary measures of meat-packing plants and meat for export was also discussed, emphasizing the need to standardize microbiological control methods, especially for the detection of salmonella. This subject was also discussed at a recent meeting of the pertinent Sub-Committee of the Regional Technical Animal Health Commission held in Paso de los Libres, Corrientes, Argentina, which was also attended by a representative of the Pan American Zoonoses Center. On that occasion it was agreed that the Center should prepare the basic documents to be discussed at a later meeting to deal with the subject. The Brazilian officials emphasized the important assistance which could be provided by the Center at the regional level in this field.

With respect to the specific assistance of the Center to the Ministry of Agriculture, the Mission received a letter dated 8 December 1969, of which the following is an abstract:

". . . this Ministry considers the assistance of that international agency to be of importance for our country, primarily in connection with:

I. Bovine rabies:

- a) Study of the behavior of vaccines under field conditions:
 - Serological observation;
 - Immunity control.
- b) Proposed study on the biology of vampire bats, particularly their influence on the epidemiology of bovine rabies in a selected area of Brazil.
- c) Study of the virus strains present in the field and those used in the manufacture of vaccines.

II. Brucellosis and tuberculosis:

- a) Diagnosis and standardization of methods used in the member countries of the Regional Technical Animal Health Commission (CORTERSA) in accordance with the regulations of the European Common Market;

- b) Organization, in Brazil, of short courses for training of technical personnel and fellowships for individual training at the Pan American Zoonoses Center.

III. General:

Technical assistance in the preparation of national programs for the control of these zoonoses and of loan applications for submission to international credit agencies."

During the interview in Brasilia with the Minister of Agriculture, Mr. Cirne Lima, the purpose of the Mission was explained, and the assistance the Center could give to agricultural and livestock industry was discussed, including the possibility of a financial contribution to the Center in the future. The Minister outlined the position of his Government with respect to the control of these diseases and expressed his agreement with the financing of the Center. He gave us a letter expressing support for this initiative. (Annex 1)

Venezuela

At the Ministry of Agriculture we met with the Director in charge of the Livestock Department; the Chiefs of the Animal Health and Production Divisions; the General Manager of ACER; the National and International Directors of Plan Venezuela 17, which is a project for improving livestock in collaboration with the Food and Agriculture Organization of the United Nations (FAO); the Chief of the Technical Division for Livestock Loans; and the Chiefs of the Departments of Tuberculosis and Brucellosis, Parasitic Diseases, Animal Health Protection, and Foot-and-Mouth Disease. This group of outstanding Venezuelan experts expressed their satisfaction with the purposes of the Mission, especially the possibility of the Center coordinating activities against diseases of great importance to the country. Of particular significance are the activities related to livestock development and improvement plans and the respective credit policy.

Detailed information was presented about the principal zoonoses. This revealed the success of the bovine tuberculosis campaign in Venezuela. The most important problem at the present is non-specific reactions to tuberculin tests, which have been experienced in other countries where tuberculosis control has been successful. Continuation of the campaign has been planned using new operational procedures, including sampling. The concept developed is to facilitate the transfer of resources from the tuberculosis control campaign to the brucellosis control and eradication campaign.

In August 1968, the necessary legal provisions for initiating the brucellosis campaign were enacted. The campaign will be conducted in accordance with the pertinent regulations, which may be summarized as follows: the campaign will be carried out in stages, covering areas in which it will be applied

in part or in whole. Partial application comprises the control of the movement of animals, diagnostic tests, isolation of sick and suspect animals, and their consequential slaughter. The vaccination of calves between the ages of three and eight months with strain 19 vaccine will be conducted. Full application will include the elimination of positive animals.

Venezuela is preparing a loan application for campaigns against foot-and-mouth disease and brucellosis which will soon be submitted to the Inter-American Development Bank.

Bovine rabies, an important problem, requires increased research activities on vaccine development as well as research on the ecology of vampire bats and the migration of insectivorous bats.

With respect to the assistance which the Center could provide to the agricultural services, the Venezuelan authorities stated that it could be usefully increased in the following areas: as a reference center for diagnostic purposes and for provision of strains, antigens, and sera; in training field and laboratory personnel; in the quality control of antigens and vaccines; and in promoting standardization of zoonoses control methods.

Special emphasis was placed on the activities of the Center in connection with intercountry coordination of the field and laboratory activities of the various campaigns. The desirability of increasing the production of scientific publications as a source of information to other countries about the progress made by the campaigns was also stressed.

In an interview with the Minister of Agriculture, Dr. Rafael Daniel Costés, the most important problems were discussed in detail. The Minister stated that his Government fully shared the concern of other Ministers of Agriculture in the Hemisphere about the need to control the principal zoonoses which cause so much harm to both the national economies and health. The Venezuelan Government will continue to support the bovine tuberculosis eradication campaign and will soon initiate a brucellosis control program. He said that assistance rendered by the Pan American Zoonoses Center was extremely useful and agreed that the Ministry of Agriculture should make a contribution in the future toward the financing of the Center in accordance with the scheme suggested. A letter of concurrence of the Ministry of Agriculture concerning the proposed scheme was received. (Annex 2)

A broad exchange of ideas took place with the public health authorities and experts responsible for zoonoses control activities concerning the work they were doing. The assistance of the Center in the specific field of public health, especially in campaigns against canine rabies and in food control, was pointed out.

In our interview with the Resident Representative of the United Nations, we discussed the objectives of the Mission, the needs of the programs, and the activities of the Center which, in the future, will have to be increased to be commensurate with the demand for assistance in the field of zoonoses, at the regional level.

Colombia

The visit to Colombia included a meeting with the Director General of the Colombian Agricultural Institute (ICA), who is responsible for all animal health campaigns, and also with officials in charge of the zoonoses programs. The major problems of brucellosis, tuberculosis, bovine rabies, and equine encephalitis were discussed. The danger of the introduction and spread of hydatidosis relative to recent imports of sheep and sheep dogs were enumerated. Other meetings were held with officials from ICA's Department of Animal Sciences, with whom the project preparation stage of the brucellosis campaign was discussed in detail. The procedures related to the quality control of antigens and vaccines against this and other zoonoses were commented on. Relative to this, discussions were held with the authorities of the Colombian Veterinary Products Corporation (VECOL) on the production of antigens and vaccines against the zoonoses.

In the general context of animal health, the officials agreed that bovine brucellosis has the highest priority because of the losses it inflicts upon the livestock industry. The authorities reported that of 103,232 serum samples examined in 1969, 13.5 per cent were positive. The national brucellosis control campaign being planned will be associated with the foot-and-mouth disease campaign in a loan application to be submitted to IDB in 1970. In the case of the brucellosis project, the Pan American Zoonoses Center has already given some assistance, which the authorities consider should be extended, with emphasis given to the laboratory and field aspects. The technical personnel specified they would immediately prepare a plan for vaccine control to be applied in the projected campaign.

Descriptions were given of the problems of bovine rabies and the recent outbreaks of equine encephalitis in the Guajira area, on the frontier of Venezuela. Likewise, the bovine tuberculosis problem merits special consideration in that it alludes to an investigation to clearly establish the prevalence.

In the course of these meetings, the valuable assistance being provided by the Pan American Zoonoses Center and the need to provide additional support in the form of training of personnel for the preparation and control of vaccines and antigens was stressed. The programming and execution of campaigns, and the verification of the quality of biological products and drugs used against zoonoses, will also require technical assistance and training from the Center.

The Minister of Agriculture, Dr. Armando Samper, met with the Mission and was informed of the objectives of the visit. The Minister concurred with the proposed contribution his country could make to the Center's expanded program, and a letter to this effect was received and is included in this report. (Annex 3)

The Minister of Health, Dr. Antonio Ordoñez Plaja, and the Secretary General met with the Mission and examined with them the Center's activities in the health sector in Colombia and its possible participation in new programs of canine rabies control and food hygiene, especially meat hygiene. The Minister expressed his support of the activities to be developed in the field of zoonoses, specifying that a joint and coordinated role for health and agriculture was a basic prerequisite in dealing with the social and economic problems created by these diseases.

A subsequent meeting was held with the professional personnel associated with the zoonoses in the Ministry of Health. A site visit was made to the Faculty of Veterinary Medicine and Animal Husbandry of the National University of Colombia in Bogotá where a request was received for the assistance of the Center in collaborating in a course on food hygiene for professional, agricultural, and health personnel.

Ecuador

Following the established itinerary, a first meeting was held with the professionals in the Department of Animal Health. The animal health situation, the availability of resources, and the needs for assistance in the conduct of campaigns were examined. Regarding the zoonoses, brucellosis was regarded as the most serious in view of the high prevalence of positive reactions encountered in the tests conducted on animals in the mountain and coastal regions. A program of calfhood vaccination and of elimination of positive reactors was begun in 1965, but could not be continued because all available resources had to be diverted to the control of foot-and-mouth disease, which appeared in the mountains.

The authorities of Ecuador are submitting a loan application to IDB to support campaigns against brucellosis and foot-and-mouth disease. The support and assistance of the Center was requested for the preparation of the project, for making field surveys in connection with this project, and for the conduct of programs. Data presented about bovine tuberculosis in the mountain region, which has the largest bovine population in the country (predominantly high-grade dairy cattle), show that the prevalence of this disease in some areas may be quite high. Accordingly, a joint control program for brucellosis and tuberculosis may be considered desirable.

In the meeting at the Ministry of Agriculture, it was reported that the Government viewed with satisfaction the work that the Center had been doing and that Ecuador supported the proposal to expand its program of assistance to countries. The Minister, Dr. Angel Duarte Valverde, in a letter addressed to the Mission, stated that he had agreed to participate in the financing of the Pan American Zoonoses Center on the general terms and conditions that would be discussed at the Third Inter-American Meeting, at the Ministerial level, in Argentina. (Annex 4)

While meeting with the Resident Representative of the United Nations, the problem of zoonoses and the activities of the Mission were discussed. The Representative was in agreement with a broader regional program for the Center, which would contribute in fields of importance to individual countries and to the United Nations, such as health, nutrition, and economic development.

The activities in which the Ecuadorian Ministry of Agriculture sought the support of the Center were similar to those in the other countries visited, i.e., assistance in field advisory services, programming of campaigns, provision of biological reference products, training of personnel responsible for official programs, and a specialized information service.

In discussions with the Under Secretary of Health, consideration was given to the possibility of supporting a pilot program of canine rabies control in the city of Guayaquil, which is very important. The Under Secretary stressed the significance his country attached to assistance from the Center in combatting the major zoonoses, which represent a serious threat to the health of the people.

Peru

Detailed discussions were held with the Director of Animal Husbandry and the Deputy Directors of Animal Health and the Quarantine Division on the current status of brucellosis, tuberculosis, hydatidosis, distomiasis, equine encephalitis, and cystocercosis in swine. These professionals are in charge of the tuberculosis and brucellosis programs.

The Director of Animal Husbandry strongly approved of the objectives of the Mission. He emphasized the priority that should be given to the control of animal diseases in relation to the aims of the agrarian reform program and the targets of the agricultural sector, within the framework of the social and economic development plan. He spoke of the livestock development program which is intended to achieve self-sufficiency in beef cattle by developing cattle-raising in the country's eastern region. Increased production in the communities of the mountain region, especially within those which had received their land under the agrarian reform, is anticipated. This program is based on a policy of loans, livestock imports, technical assistance, education, information services, and research.

In relation to the tuberculosis eradication program, imports of dairy cattle would be scheduled to replace livestock in those areas in which reactors were being eliminated. The prevalence of this disease is high in the area adjoining Lima, where an experimental study is planned with the use of isoniazid in reactors on a limited number of animals. Bovine and caprine brucellosis require special attention because of the numerous reported cases in human beings over the past two years. The Pan American Sanitary Bureau and the Pan American Zoonoses Center have given technical assistance, equipment, and Rev. 1 vaccine to the health and agriculture authorities to develop a control program for caprine brucellosis using the Rev. 1 vaccine.

The high prevalence of hydatidosis in the mountain region is regarded as a very serious problem necessitating special efforts to provide adequate solutions.

In a subsequent meeting, the Director General of Agricultural Development and the Director General of Technical, Economic, and International Cooperation indicated the desire of the authorities of the Ministry of Agriculture and Fisheries to maintain the closest possible contacts with the Pan American Zoonoses Center in questions relating to the control of the major zoonotic diseases.

The Minister of Agriculture, General Jorge Barandiarán Pagador, expressed his support for the Center and offered the full assistance of the authorities in obtaining a better understanding of the problems. He expressed great interest in obtaining increased support from the Center for Peru's efforts to control brucellosis, hydatidosis, and tuberculosis. In a letter the Minister wrote of the support that the Ministry would give to the Center to assist with its normal operating costs. (Annex 5)

At a meeting with the Director of Health, the Director General and Deputy Director of the National Institutes of Health, and the Director of the Institute for Zoonoses and Livestock Research, the objectives of the Mission and the significance of the zoonoses on public health were discussed. Special reference was made to a pilot program for the control of canine rabies in Lima, to be conducted in 1970 with the participation of the Government, the Pan American Health Organization, and the Pan American Zoonoses Center.

A site visit was made to the Institute of Zoonoses and Livestock Research, whose Director stressed the assistance they received from the Center relative to the control of antigens and vaccines, the provision of reference material, reference diagnoses, and information and staff training.

The Mission met with the Resident Representative of the United Nations and informed him of the conclusions of the meetings. The Representative expressed his interest and satisfaction with the expansion of activities in areas of such importance to Peru.

Chile

The meeting conducted with the Minister of Agriculture, Engineer Hugo Trivelli Franzolini, was also attended by the Under Secretary of Agriculture, the Executive Director of the Animal Husbandry Service, and the Director of Animal Health. Discussions were held concerning the II Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control in relation to the future role of agricultural agencies with the activities of the Pan American Zoonoses Center. The Minister, after hearing the views of his professional staff on the desirability of supporting the Center and the benefits, present and

future, from its support, informed us that in principle he was in favor of granting financial support to it, but he would study how this might be done through the appropriate Government channels.

In the Animal Husbandry Department, the Mission met with personnel in charge of the Animal Health Subdivision, with the Director of the Department of Diagnosis and Analysis, officials of the Livestock Infertility Project, and the Parasitology Laboratory. The main programs for the zoonoses and the assistance provided by the Center were discussed.

The relatively intensive nature of livestock farming in a substantial area of the country supported the spread of these diseases. It was reported that, in the course of tests made on cattle from ranches subject to health inspection, of 88,838 animals examined for brucellosis 8.6 per cent were positive and of 59,009 examined for tuberculosis, 4.6% were positive. These percentages may be substantially higher in the case of livestock from ranches not subject to inspection.

A brucellosis campaign is being planned as part of a project dealing with reproductive diseases of cattle including trichomoniasis and vibriosis. This campaign would be initiated in the livestock provinces of the south and gradually be extended to the rest of the country. The most serious problem with respect to the spread of the disease is how to control the movement of positive reactor animals. In 1969 a project was initiated in the provinces of Santiago and Cautin in association with the Faculty of Animal Science and Veterinary Medicine of the University of Chile and the Institute for Research in Animal Science with the objective of testing a vaccine against brucellosis produced with Brucella abortus strain 45/20.

The national program for the control and ultimate eradication of brucellosis will follow the procedures of vaccination of calves with strain 19 and the elimination of adults showing positive reactions. Chile is now beginning to make use of an Inter-American Development Bank loan for the foot-and-mouth disease campaign. It is believed that the organization of health facilities, which this campaign calls for, would also facilitate a control program for brucellosis.

All these programs are of great significance to the country, which is making a substantial effort to develop a livestock industry with the objective of correcting the growing imbalance between the supply and demand of beef and dairy products in Chile. Importations of livestock and meat are growing larger, giving first priority to the initiation of all measures possible to reduce losses caused by diseases.

Other important zoonoses in Chile are hydatidosis, distomiasis, and leptospirosis. Chile has pointed out these problems during a meeting of the Regional Technical Animal Health Commission (COTERSA) and the necessity for the assistance and guidance of the Center.

Chilean authorities expressed great satisfaction over expansion of the Center's activities, since it would lead to closer contacts between countries and consultants of the Center, whom they regard as essential for effective guidance both in the field and the laboratory.

The Mission met with the Secretary of the National Advisory Council on Health and with the Chief and staff of the Epidemiological Section, the Director of the Bacteriological Institute, the Technical Advisor on Parasitology of the University of Chile, the Director of Zoonoses, and the Chiefs of the Rabies Vaccine Production, Rabies Diagnosis, and Tuberculosis Units of the Bacteriological Institute. From this distinguished group of professionals it was possible to obtain full details of the zoonoses programs and have an extensive interchange of ideas on present and future collaboration with the Center.

The program of future activities of the Center, in the light of the views expressed by Government authorities in Chile and in the other countries visited by the Mission, was thoroughly discussed with the Resident Representative of the United Nations. He emphasized the need for stonger action by countries to deal with the zoonoses problem.

Uruguay

The principal resource of the country's wealth is the livestock industry. A development program is starting to form methods for increasing production of meat and milk, incrementing export balances, and improving arrangements for marketing abroad. A firm improvement plan for farming and livestock raising is being carried out on a national scale and is based on the policy of selected loans financed by local sources and the World Bank.

At meetings with those concerned with animal health and senior members of the staff of the "Miguel C. Rubino" Veterinary Research Laboratory, it was revealed that the zoonoses in Uruguay posing the most serious threat to health were brucellosis, bovine tuberculosis, and hydatidosis. In January 1964 a two-stage national brucellosis campaign was launched. In the first stage, whose duration was seven years, compulsory vaccination with strain 19 vaccine of all three- to eight-month old heifers was introduced and carried out under the responsibility of veterinarians. Between 600,000 and 700,000 heifers have been vaccinated each year, with liquid vaccine prepared in private laboratories under inspection by the official laboratory of the Ministry of Agriculture. The second stage, to begin in 1971, will include the elimination of reactors, but before then, in 1970, regulations governing the plan of operations will be issued. The diagnostic antigens are produced exclusively in the Ministry of Agriculture laboratory. The reference strains and techniques recommended by the Pan American Zoonoses Center are used in preparing these antigens as well as the vaccines. The Center has been asked to assist in programming the second stage, including the sampling design and other aspects of field and laboratory activities.

Bovine tuberculosis is widespread in the principal milk-producing area of the country, which supplies the City of Montevideo. In August 1963, a system of subsidy per liter of milk was introduced for producers in this dairy region who participated in a program of tuberculosis eradication. Three and a half years have passed, and the results obtained have been very encouraging, some 60 per cent of the producers having joined the program. For financial reasons, the program was suspended for a year and a half and reinstated in 1969, and, by January 1970, practically 70 per cent of the producers in this area participated in it. According to official inspections of 94,248 cattle, the infection rate, which was 10 to 15 per cent, has been reduced to less than 1 per cent. Tuberculin is produced officially from strains and in accordance with techniques recommended by the Pan American Zoonoses Center. Its use is also determined by recommendations of the consultants of the Center.

Hydatidosis represents one of the most serious threats to public health and the animal industry. It has led to the formation of the Honorary Hydatidosis Control Commission under the chairmanship of a representative of the executive branch of the Government. It is composed of representatives of the Ministries of Health and Agriculture, professors of medicine and veterinary medicine, and rural organizations. The Chairman of this Commission reported in detail on the scope and importance assumed by hydatidosis and on the studies the Commission was conducting or had proposed.

With regard to the significance and widespread prevalence of hydatidosis among cattle, a survey made of a significant sample of livestock slaughtered at the National Cold Storage Plant and obtained from various areas of the country showed that 61.23 per cent of the animals had hydatid cysts. It is estimated that in adult sheep the rate of infection is even higher than it is in cattle. The total canine population of the country is estimated at some 700,000 dogs, and a high proportion of those in rural areas may be infected with Echinococcus granulosus.

The threat to public health can be measured by the fact that there are some 550 to 600 human cases recorded annually. It has been reported from the epidemiological data available that there were approximately 40,000 persons with hydatid cysts in the country. The prevalence of cases is very high in those areas with large sheep populations. For example, in the Department of Flores the rate is 120 per 100,000 inhabitants and in the Department of Durazno it is 84 per 100,000. The mortality rate fluctuates between 6 and 7 per cent, and many patients are left after surgery with various degrees of permanent disability.

The Commission has planned a program for a pilot control area which would include all of the Department of Flores, and the Mission was informed that valuable assistance would be obtained through technical cooperation and special resources from the Pan American Health Organization and the Pan American Zoonoses Center.

In 1969 an Inter-American Development Bank Mission visited Uruguay and cooperated in meetings with a Ministry of Agriculture working party, in

which consideration was given to the possibility of undertaking an animal health project which would include foot-and-mouth disease, brucellosis, tuberculosis, tick control, and hydatidosis campaigns.

At a meeting with the Coordinator of Veterinary Services and the Director of Animal Industry, the importance of the Center's support in the control of zoonoses transmitted by food, especially salmonellosis, was stressed. Recently, substantial national funds (a loan of US\$15,000,000 obtained from IDB for this purpose) have been invested in the expansion and modification of cold storage plants to be utilized in exports. Campaigns against the principal zoonoses and measures to prevent their transmission through meat are particularly valuable from the public health aspect and facilitate the exportation of meat.

In an interview with the Minister of Agriculture, Dr. Juan M. Bordaberry, all these aspects were considered. The Minister stated that his country assigned the highest priority to zoonoses control and to the health problems connected with livestock exports. He also approved the proposal to expand the activities of the Pan American Zoonoses Center, both in its objectives and financial implications. In this connection the Mission received a letter from the Minister, a copy of which is attached to this report. (Annex 6)

In the visit with the Minister of Public Health, various aspects of the zoonoses and their impact on health economy were discussed. The Minister expressed his satisfaction with the objectives of the Mission. In discussions with the Resident Representative of the United Nations, a similar interest was manifested in the decisions reached by the Ministers of Agriculture at the Rio de Janeiro meeting and the prospects of increased assistance from the Center.

Paraguay

In Paraguay, it was reported that an increase in livestock production and a rise in livestock exports were fundamental objectives of the country's national development program. The country has loans for the development of the agricultural sector from the World Bank and the Inter-American Development Bank. It is also receiving assistance from FAO in carrying out a program of livestock research.

A foot-and-mouth disease campaign has been launched with the financial assistance of IDB. According to the authorities, it is desirable to launch similar campaigns against brucellosis, bovine rabies, and tuberculosis.

In 1962, the first attempt was made to estimate the losses resulting from bovine brucellosis, which amounted to 128 million guaranías (US\$1 million) annually. In the dairy-farming area of Asunción, a sample taken in 1967 showed that 85 per cent of the dairy farms had infected animals and that the infection rate was 11 per cent. Another sample taken in the same year revealed that 10 per cent of the dairy cattle from the same region were positive to tuberculin.

Bovine rabies is enzootic throughout the country but increased in 1969 in certain areas, causing grave concern among livestock raisers.

The Minister of Agriculture, Mr. Hernando Bertoni, reported that the control of the major zoonoses was of vital technical and economic importance to his country and that his Ministry attached great importance to the work being undertaken by the Center. His Government therefore supported the prospective participation in the financing of the Center, on terms and conditions that would have to be discussed at the III Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control to be held in Argentina. The Minister presented the Mission a letter in which he set forth his position. (Annex 7)

During the visit to Asunción discussions were held with the Director General of the Ministry of Health and Social Welfare and with the Chief of the Zoonoses Section on programs of action against these diseases in the health sector, in particular the campaign against canine rabies which is proposed to begin in this capital with the Center's support.

In the course of the visit to the Resident Representative of the United Nations, the Mission's objective was described and various questions connected with development programs in Paraguay examined.

Bolivia

Bolivia is also receiving international financial support for projects to expand and improve its livestock industry. We were told that a loan application was being prepared for submission to IDB for resources to finance campaigns against foot-and-mouth disease, bovine rabies, and brucellosis.

The animal health authorities reported that bovine rabies and foot-and-mouth disease were the most serious diseases in the eastern part of the country, which possesses the majority of the country's cattle population. A future increase in meat production can best be achieved in the Department of Beni in this area. The first stage of a livestock program has been completed with the financial assistance of the World Bank. The second stage was initiated recently with an addition to the loan. In the Bolivian Chaco, the expansion and improvement of livestock production has been assisted by a loan of US\$5 million from the IDB.

Bovine rabies, whose presence was recorded for the first time in Bolivia in 1937, is widespread in the eastern region with substantial losses, as estimated by the officials.

Vaccination is conducted voluntarily by the husbandrymen, using imported vaccines from neighboring countries, Canada, and the United States.

Data available on brucellosis show that the disease exists both in dairy and in beef cattle. In a limited number of serum samples from dairy cattle in

Cochabamba, 7.6 per cent were found positive. In the case of tuberculosis, a larger number of samples is required before an infection rate for cattle can be determined. So far as the other zoonoses are concerned, it was pointed out that distomiasis and cysticercosis in swine were found in a high percentage of animals in certain regions of the country. Studies are needed to determine the prevalence of hydatidosis in the altiplano, which has about six million sheep.

The Under Secretary of Agriculture and Rural Development was informed of the reasons for the Mission and reported that the Ministry supported in principle the proposals made about the financing of the Center. To this effect, a letter of support has been received from Dr. José L. Roca García, Minister of Agriculture. (Annex 8) The National Director of Public Health expressed interest in receiving assistance from the Center in training personnel in control of the zoonoses and in food inspection.

Together with the Resident Representative of the United Nations, the Mission had an opportunity to examine the prospects for a regional zoonoses control program.

Panama

The Mission met the Minister of Agriculture, Mr. Carlos E. Landau, together with a group of professional personnel responsible for animal health programs. The Minister expressed satisfaction with the objectives of the Mission and stressed the importance that the Government attached to animal health programs. The problem of brucellosis and its importance to Panama and the other countries of the Region was discussed in detail. It was revealed that, in a meeting held in 1969 in Guatemala, the Ministers of Agriculture of the area approved a recommendation on the need to conduct campaigns against this disease and to seek financial assistance from IDB.

We were informed of the current tuberculosis and brucellosis programs. The prevalence of the latter disease in the central region of the country is of great concern. Discussions on brucellosis in swine brought out that recent tests on sera taken at the Panama abattoir revealed a substantial percentage of positive reactions. Another disease which is frequently found in swine is cysticercosis.

The Minister presented a letter to the Mission in which he stated that his Government was prepared to participate and contribute to the financing of the Pan American Zoonoses Center for an expanded program of activities. (Annex 9)

At the interview with the Resident Representative of the United Nations, we explained the Mission's objectives. He expressed his approval of them, supporting the possible development of a regional program to provide countries with greater assistance in their campaigns against the zoonoses.

Costa Rica

The Minister of Agriculture, Mr. Guillermo E. Yglesias P., fully supported the need to undertake zoonoses control programs and stated in the attached letter the intention of his Government, together with other agricultural agencies of the Continent, to contribute to the financing of the Pan American Zoonoses Center. (Annex 10) He also referred to the proposed program on brucellosis control that the Ministry was anxious to undertake and for which it would submit an application for financial assistance to IDB.

The Chief of the Division of Animal Health provided the Mission with detailed information on the situation in the health field, the programs being undertaken, and their relation to agriculture development policies.

As in the other countries of Central America, with the exception of El Salvador, the export of meat in Costa Rica had in recent years become an important sector of the national economy, leading to improvements in animal husbandry and the formulation of plans for the development of a livestock industry based on policies of agricultural credit and technical assistance. In carrying these out, assistance is being received from national resources, the World Bank, and the Inter-American Development Bank. The principal objectives are to increase domestic supplies and produce a growing surplus for export. A systematic and purposeful attack on disease is regarded as one of the factors essential to the success of these programs.

Participants in the World Bank Program were required to conform to health requirements governing the purchase of cattle with loan funds, under which borrowers have to include their livestock programs in brucellosis and tuberculosis control programs. In the national animal health program, brucellosis and tuberculosis control programs. In the national animal health program, brucellosis control should be given top priority in view of its widespread prevalence and losses among dairy and beef cattle. Of 21,760 serum samples from dairy and beef cattle selected in 1969, 7.7 per cent showed positive reactions (3.8 per cent positives and 3.9 per cent suspects.)

Bovine tuberculosis is less prevalent, especially among beef cattle. Surveys conducted in the past two years revealed that in 1968, of 8,834 animals 1.75 per cent were positive, and that in 1969, of 7,454, 0.56 per cent were positive. Bovine rabies is less than a major problem, although it assumes epizootic proportions in certain regions of the country.

At the Ministry of Health, discussions were held with the Director General and the Chiefs of the Food Control and Zoonoses Divisions concerning the support the Center could provide in field laboratory aspects for the canine rabies campaign.

Nicaragua

The Minister of Agriculture, Dr. Alfonso Lovo Cordero, reported that he was pleased to give his support to the proposed expansion of the Center's activities and its financing by means that would have to be discussed at the III Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control. In so doing, he wished to demonstrate the spirit of cooperation which should govern all efforts designed to benefit the countries of the Americas. (Annex 11)

At a meeting with the Vice-President of the Republic, the Minister of Health (Dr. Francisco Urcuyo Maliaño), and the Directors of the principal departments of the Ministry, expressions of support for the objectives of the Mission were received. These were clearly consistent with the recommendations on zoonosis approved by the Ministers of Health of the Americas at their Special Meeting in Buenos Aires in 1968 and by the Twenty-Second World Health Assembly in Boston, Massachusetts, in 1969.

The Director General of Animal Husbandry and the Chief of the Division of Animal Health provided us with data concerning the prevalence of brucellosis, tuberculosis, bovine rabies, and cysticercosis in swine. In the case of brucellosis, the available information on rates of infection revealed a low prevalence. Serological samples obtained during the past two years revealed that in 1968, of 16,347 animals examined 6.4 per cent were positive and in 1969, of 33,722 animals examined, 4.1 per cent were positive. Cysticercosis in swine, as in other countries, is also regarded as being widespread.

There have been recent outbreaks of Venezuelan equine encephalitis that are being controlled by a vaccination program with vaccines imported from the United States of America.

Guatemala

The effects of the zoonoses on the livestock industry were the subject of the discussions with the Minister of Agriculture of Guatemala, Mr. Francisco Montenegro Girón, with particular reference to brucellosis and its economic implications. The Minister explained in his official letter to the Mission that the Government, conscious of the need to provide for the various aspects of livestock health programs, was prepared to support the financing of the Center's expanded program. (Annex 12)

The current status in Guatemala of the principal zoonoses was explained during a joint meeting with those officials responsible for animal health and the zoonoses in the Ministries of Agriculture, Public Health, and Social Welfare.

Brucellosis is regarded as the most serious and widespread zoonosis, existing both in beef and dairy cattle. In tests conducted in 1967 by the

Faculty of Veterinary Medicine and Animal Genetics of the University of San Carlos, the following results were obtained: cattle, 20,669 specimens, 8.5 per cent positive reactions; swine, 6,564 specimens, 8.4 per cent positive reactions. A recent survey in 1969 conducted on 5,014 cattle revealed 10.2 per cent reactors (4.8 per cent positive and 5.4 per cent suspects).

Although no detailed estimates are available of the losses resulting from this disease, they are believed to represent a serious threat and to contribute significantly to the low reproduction rate. It was reported that the fertility rate does not exceed 45 per cent and the mortality rate for calves is about 20 per cent. These two factors contribute significantly to the fact that the percentage of livestock destined for slaughter does not exceed 11 or 12 per cent. The importance attached to obtaining the assistance of the Pan American Zoonoses Center was clearly stated relative to training for campaigns and preparing a brucellosis project to be submitted to IDB, in accordance with the Resolution adopted at the 1969 meeting of the Ministers of Agriculture of OIRSA. This project would also help with the execution of the livestock program being carried out with domestic and World Bank funds.

The data available on tuberculosis show that, although its prevalence among beef cattle is low, this disease may be relatively widespread among dairy cattle.

Bovine rabies occurs principally in the northwestern region of the country, along the border with Mexico, with periodic recurrence.

The epidemic of Venezuelan equine encephalitis that affected Central America appeared in Guatemala in 1969 and concurrently in El Salvador, with Honduras and Nicaragua following. During the site visit to Guatemala, it was observed that the vaccination campaign continues to be extended to the various zones of the country. It was also pointed out that cysticercosis is found in a significant percentage of swine and cattle.

A project of general interest to the whole Central American region is in the stage of advanced study in Guatemala, with the assistance of the Pan American Health Organization. This is the establishment of a biological institute for Central America and Panama, to be financed with contributions from the Government and from the Central American Bank for Economic Integration. This Institute is scheduled to prepare antigens and vaccines for both human and animal use and to make it easier to obtain these products for animal health campaigns.

Mexico

In the interview with the Secretary of Agriculture, Mr. Juan Gil Preciado, the objectives of our Mission were spelled out and met with his

approval. He indicated that his Government was prepared to contribute to the financing of the Pan American Zoonoses Center in association with the Ministries of Agriculture of the other countries of the Americas. The Secretary stressed the importance of the animal health programs to his country, announcing that a national brucellosis campaign will be launched in 1970.

In a visit to the Resident Representative of the United Nations, the results the Mission had obtained in the various countries were discussed. The relationship between the Center's projects and those of the United Nations in Mexico was examined.

The Director of Animal Health, in a meeting, reported on the livestock development programs and their relation with the various aspects of the export of live animals and animal products. He indicated that in Mexico brucellosis control took priority over control measures for the other zoonoses. The program to be initiated in April 1970 would be an optional one, designed to encourage the breeding of brucellosis-free herds. In some areas where the prevalence of the disease is regarded as high, such as along the coast, alternative methods need to be employed. A development of special importance to animal health in Mexico is the establishment of a network of regional animal pathology laboratories. This achievement is attributable to the nature of the organization maintained by livestock owners in each municipality of the various states and to the support they gave to the development of this animal health program.

The kind of assistance most valuable to Mexico that the Pan American Zoonoses Center could provide is related to the planning and conduct of campaigns and the organization of exchanges of experience between personnel responsible for health programs in different countries through seminars or other communications.

In a visit to the National Institute for Livestock Research at Palo Alto, discussions were held with its Director and professional staff members of the Institute on the kind of cooperation that could best be developed with the Center. It was concluded that the Center could make its greatest contribution in the fields of training and research projects. During a meeting with a group of researchers working on a project which is being conducted by the Government with the assistance of UNDP and FAO, it was agreed that it would be valuable to exchange information with the Center and coordinate studies on this disease.

The Mission also met with the Deputy Minister of Health. Subsequently, at a technical meeting with the Director of Epidemiology and Health Campaigns and the Chief of the Zoonoses Division, the zoonoses control programs being conducted by the federal and state health services and the aspects in which the Center could effectively contribute were discussed.

United States of America

After the Mission had given a verbal report to the Director of the Pan American Sanitary Bureau concerning the views and comments it had gathered during the visit to the countries of South America, Panama, Central America, and Mexico, as well as the conclusions it had reached, meetings were held with the United States authorities and senior members of the Pan American Sanitary Bureau.

The first working meeting was held at the Headquarters of the Pan American Health Organization under the chairmanship of Dr. Abraham Horwitz, Director. The meeting was attended by the Deputy-Director and senior staff members. The authorities of the United States of America, representing the U.S. Department of Agriculture, were the Associate and Deputy Administrator of the Agricultural Research Service, the Chief of the Animal Diseases Research Division, and the Chief of the Animal Health Division. Those representing the U.S. Public Health Service were the Assistant Surgeon General/Director of Veterinary Public Health and the Assistant Surgeon General/Veterinary Medical Advisor of the Office of Science and Technology of the Executive Branch.

The members of the Mission presented the following during the meeting:

- a) present status of zoonoses control in the countries visited;
- b) assistance being provided by the Pan American Zoonoses Center;
- c) results of the discussions in the different countries with agricultural and health officials on problems and needs in the field of zoonoses control; and
- d) need to provide the Pan American Zoonoses Center with the necessary funds to enable it to expand its program of activities and thus to provide the Ministries of Agriculture with the necessary technical advisory services.

The members of the Mission also specified the desire of the national agricultural authorities to receive more assistance from the Center. Specifically, assistance had been asked for in planning the administration of control programs; in the education and training of personnel; in epidemiology; in the production of biological products; and in the development of techniques and distribution of standard reagents for the diagnosis of zoonoses. A considerable number of countries had invested large sums in zoonoses control or eradication projects. Many of them were applying for international loans for that purpose. The technical services the Center can provide are necessary to ensure that these funds are used effectively and wisely.

These statements were supplemented by comments from the professionals of the Department of Agriculture and the Public Health Service, who expressed their firm support for the activities being conducted by the Pan American Zoonoses Center. They pointed out that it was essential to undertake multinational activities for the control of these diseases and that the Center could play a vital role as a regional coordinator.

In accordance with the planned program of interviews, the Mission accompanied Dr. Abraham Horwitz, the Director of the Pan American Sanitary Bureau, and the senior professional staff of the Bureau to the State Department, where the group met with Mr. Henry Catto, the Deputy-Ambassador to the Organization of American States.

Dr. Horwitz opened the meeting by stating that at the II Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control, held by the Ministers of Agriculture in Rio de Janeiro, Brazil, in May 1969, the Pan American Sanitary Bureau had been requested to undertake a study. The results of the study will be presented at the III Inter-American Meeting to be held in Buenos Aires, Argentina, from 14 to 17 April 1970, on the ways in which the Pan American Zoonoses Center could give more active assistance to agriculture and livestock agencies in controlling zoonoses. The report will also describe how those agencies can assist in the development of the Center's program and provide the necessary funds to enable it to expand and extend its activities.

He further explained that, pursuant to that resolution, the Bureau had designated a Mission composed of Dr. Juan T. Bowler, of the Office of the Secretary of State for Agriculture of Argentina, and Dr. Rubén Lombardo, a staff member of the Pan American Zoonoses Center.¹ The mission had just completed visits to the countries of South America, Panama, Central America, and Mexico, and was finishing its trip with a visit to the United States of America. The Mission had interviewed the Ministers of Agriculture and Health in the countries concerned, as well as the officials in charge of zoonoses control.

After informing the Ambassador of the magnificent welcome the countries of Latin America had given to the Mission, Dr. Horwitz dealt with the problem of the zoonoses, their socioeconomic implications for the Member Countries of the Inter-American System, the activities being conducted by the countries and the Pan American Sanitary Bureau, through the Pan American Zoonoses Center, and the possibility of agricultural and livestock agencies of the Hemisphere assisting in the expansion of the Center's activities.

¹In the visits to Brazil, Chile, Colombia, Ecuador, Peru, and Venezuela, the Mission was composed of Drs. Enrique García Mata and Rubén Lombardo.

He informed Ambassador Catto that the Mission had learned that many of the zoonoses, such as rabies, brucellosis, bovine tuberculosis, and hydatidosis, constitute more serious public health problems in Latin America than previously considered and impose an appreciable impact on the production of essential foods, resulting in enormous financial losses and hindering development plans in the agricultural sector.

Dr. Horwitz also mentioned that during the Twenty-Second World Health Assembly, held in Boston, Massachusetts, from 8 to 25 July, 1969, the Member Governments had acknowledged the importance of zoonoses for the health and welfare of millions of persons in the world and requested the Director-General to expand the efforts of the World Health Organization for the control of those diseases. Furthermore, the Ministers of Public Health of the Americas, at their meeting in Buenos Aires, Argentina, in October 1968, had declared that the importance of the zoonoses fully justified the interest of Governments in controlling them and had recommended that control and eradication programs be carried out.

After answering a number of questions put to them by Ambassador Catto, the Members of the Mission reported that the Ministers of Agriculture of the countries which they visited had spoken very favorably about contributing financially to the support of the Pan American Zoonoses Center and that they had also received letters of support from most of them.

Ambassador Catto said that he was very well pleased with the success of the Mission, as well as with the benefits that should arise from the decisions taken by the Latin American countries in the matter of zoonoses control. Concerning this effort, the United States of America looks upon it with sympathy and is prepared to give its support. He asked that the report of the Mission be sent to him as soon as it was completed so that he could study it with his staff. At the conclusion of the meeting, Ambassador Catto once more expressed the wishes of his Government to assist the Pan American Health Organization in this endeavor which was so important for the countries of the Hemisphere.

CONCLUSIONS

We consider that it is essential for the Governments of the Americas to include, as an integral part of their activities of socioeconomic development, effective programs against the most important zoonoses in the Hemisphere.

The concern of the Governments and the international agencies over the huge losses caused by these diseases on the health and economy in the Americas is completely justified.

It is vital to establish technical and administrative methods which give effective control of these diseases as help and security to the large national investments and to those from international lending institutions destined for improvement and increase in livestock production.

The Governments have estimated, reasonably, that livestock development is not increasing at the same rate as the population growth of the Continent and that it is not meeting the internal demands that are aggravating the lack of protein of animal origin in an area where its deficiency is a great problem.

It should be pointed out that international credit institutions, particularly the Inter-American Development Bank, have indicated a desire to collaborate with the countries in this undertaking and to consider and study loan requests for zoonoses control programs.

Based on these possibilities, various countries have decided to begin programs of control and eradication or intensify existing campaigns. It was very gratifying for the Mission to confirm that several Governments are in the process of elaboration of projects for loan requests to IDB for financing control programs in brucellosis, tuberculosis, and bovine rabies.

These countries expressed their firm desire to establish better coordination at the international level of zoonoses control programs, as well as to standardize laboratory and field methods and procedures used in the fight against these diseases. There is a great interest among the countries in obtaining a large exchange of technical and administrative information through international organizations.

The Mission was favorably impressed by the opinions manifested by the Governments about the activities accomplished by the Center. The response was unanimous among the Governments with respect to the need to provide additional funds to the Center as soon as possible for expansion of its activities, with the goal of providing the required technical advice to the Ministers of Agriculture of the Continent.

The Mission was able to verify the opinion of the agriculture agencies, at both the technical and political levels, concerning the services they need

from the Pan American Zoonoses Center to support their actions in the control of the zoonoses. We consider that, according to these opinions, the following requirements are most important:

- advice in the planning, execution, and evaluation of programs of zoonoses control;
- advice in the preparation of plans for financing these programs, including the completion of loan requests to international lending agencies when needed;
- individual training in the Center and development of training courses in field and laboratory procedures;
- supply of reference biologics (antigens, vaccines, serums) so that the countries may have available standardized products as a basis for comparison with antigens and vaccines prepared themselves;
- supply strains and other biologics for production of vaccines, serums, and antigens; diagnostic reference samples; and reference samples for quality control of vaccines, serums, and antigens;
- collaboration in epidemiologic and laboratory research;
- research projects on problems related to diagnosis, treatment, and control of the zoonoses; and
- intercountry coordination of the control activities especially concerned with standardization of diagnostic biologics and techniques as well as field procedures.

The agricultural and health authorities, as well as the Resident Representatives of the United Nations of the countries visited, have expressed their desire and pleasure that the activities of the Center will be broadened as a Regional project with the support of the Governments and in collaboration with the United Nations Development Program.

The question proposed by the Mission to the Ministers of Agriculture about future contributions to the financing of the activities of the Center (according to the procedures and conditions suggested in Appendix A of this Report and to be established during the III Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control, to be held in Buenos Aires, Argentina, 14-17 April 1970) received in all cases expressions of firm assistance for its attainment.

We are sure that the fulfillment of the promises made by the Ministers of Agriculture, to assure the Pan American Zoonoses Center of adequate and stable financing, will be transformed into very effective action by this institution in its activities of technical assistance and training, as well as important research.

The activities that the agriculture and livestock-producing agencies develop for the control and eradication of the zoonoses in the sense of preserving animal production and in eliminating those losses caused by these diseases, as well as to prevent transmission to man, constitute one of the greatest contributions they are able to make for the health and welfare of the populations.

Appendix and Annexes

BUDGETARY ESTIMATES FOR THE EXPANSION OF THE SERVICES OF THE PAN
AMERICAN ZOOSES CENTER

The studies we have undertaken on this mission have revealed the great importance the Governments have attached to the assistance of the Pan American Zoonoses Center and the desire to see it expand its technical services to countries. We have accordingly requested the Ministers of Agriculture to consider whether or not they could make a financial contribution to the Center's budget that would enable it to launch an expanded program of assistance to the countries without delay.

With such a contribution to the Center from the Ministries of Agriculture, steps would be taken to expand the following services to countries, beginning in January 1971:

1. Field Advisory Services

One of the principal aims of the Center, relative to a vital need on the part of countries, is to promote control programs for brucellosis, tuberculosis, bovine rabies, and hydatidosis in the immediate future. The Center would assist countries with the planning, organization, conduct, and evaluation of such programs. It is important to point out here that the IDB has repeatedly indicated its willingness to consider loans to countries for the establishment and conduct of zoonoses control programs.

As previously indicated, many of the countries have expressed to the Mission their wish to obtain such loans and to receive the assistance of the Center in preparing loan applications.

The Mission considers that an effective means by which the Center can assist countries and the IDB would be the formulation of standardized technical guidelines for the planning, execution, and evaluation of such programs.

At the same time, the Center must continue to assist the Governments in the epidemiological research needed to provide new knowledge in the control of these diseases.

To realize this objective, the Center will have to expand its professional staff by adding consultants on zoonoses control programs and biostatistics. It will also need to strengthen the staff supporting such professional personnel as indicated in the budget proposal.

2. Laboratory Activities

The Center has been actively engaged in the production and standardization of biological products used in the diagnosis and control of the zoonoses, especially brucellosis and rabies. Many countries regularly receive advisory services in this field, such as reference biologicals,

strains for the production of vaccines and antigens and assistance in the quality control of vaccines and biological products for diagnosis. Because of financial deficiencies, the Center has been unable to set up a pilot plant for the production of tuberculin, which is essential to supply the countries with standardized reference tuberculin for their control programs. This plant can also be used to train microbiologists in the production and standardization of this biological product. The Mission also believes that the Center will be able to provide small quantities of standardized tuberculin for special projects, such as surveys in problem areas or differential diagnostic activities in final eradication programs. With this in view, two local posts for laboratory assistants and an appropriation for the purchase of equipment and materials are being included in the budget proposals.

In the case of brucellosis, an appropriation is being included for the purchase of two units for the production of antigens and vaccines in a liquid medium by the continuous system. With this equipment it will be possible for the Center to provide larger quantities of antigens, vaccines, and reference strains for brucellosis control programs. The Center will also be able to train Government personnel in these procedures.

It is also intended as part of the program of expanded activity to provide countries with greater assistance in those aspects of medical science concerned with laboratory animals. This will be done through technical assistance by making available a limited number of laboratory animals, so that diagnostic institutes and centers in the various countries can increase or initiate their own colonies of these animals. The increase in reference activities, vaccine control, diagnosis and research being conducted by the Center will make it necessary to use experimental animals on a broader scale. To meet this demand, it will be necessary to expand the Center's breeding facilities and the accommodations available for experimental animals, with subsequent provision for the purchase of new equipment. This modernization of the Center's animal breeding facilities is very necessary, since they are being used to train an increasing number of professionals on fellowships from various countries.

3. Training and Information Activities

a) Training

In the course of our visits, we came to realize that the Center possesses a special reputation for its contribution to the training of professional and technical personnel in the fields of zoonoses control, food microbiology, and the production and handling of laboratory animals. Significantly, with the introduction and expansion of zoonoses control programs in the country, the Center will have to increase and extend its training activities, not only in the fields referred to above, but also in planning

of animal health programs (the first course to be instituted in the present year); the organization and administration of control programs; epidemiology; and biostatistics.

b) Information and Publications

Each quarter the Center publishes its information bulletin entitled "Zoonosis," as well as a series of Technical Notes which have been widely acclaimed in all of the countries by professionals in health, animal health, and the biological sciences. During our visits we nevertheless received requests from countries to increase the amount of specialized bibliographical material in these fields, because of the limited supply in Spanish. To meet these requests, the Center will have to increase the number of its Technical Notes, issue a new series of scientific publications in the form of monographs, and compile and print additional reference material for courses, seminars, and symposia.

We believe that this service should be expanded to provide countries on a loan basis with audio-visual materials, specifically, films, filmstrips, and slides. Included in the expanded service should be reproductions of articles from reviews in the Center's library, a bibliographical research service, and the provision of reference material. It would be advantageous for the Center to coordinate these latter activities with the Regional Library of Medicine, of the School of Medicine of São Paulo, Brazil, which is a Pan American Sanitary Bureau project and supported by the National Library of Medicine of the United States of America.

Expansion of these activities makes it necessary for the Center to set up a unit for the specific purpose of organizing and coordinating all its activities in the fields of training, information, and publications. It is necessary then to include in the budget posts for a chief of training, a translation and publications officer, and auxiliary staff for audio-visual aids, the library, and secretarial duties.

PAN AMERICAN ZOOSES CENTER
BUDGET ESTIMATES BASED ON CONTRIBUTIONS OF
THE MINISTRIES OF AGRICULTURE

1 January - 31 December 1971

<u>Field Advisory Services</u>	<u>53,815</u>
Salaries and Allowances	46,605
Professional Staff (2)	
Consultant on control programs, P.4	
Biostatistician, P.4	
Local Staff (4)	
Statistical assistant, G.7	
Secretaries (2), G.4	
Driver, G.2	
Duty Travel	7,200
<u>Laboratory Activities</u>	<u>155,998</u>
Salaries and Allowances	21,998
Local Staff (6)	
Laboratory assistants (2), G.6	
Assistant for culture media, G.6	
Supervisor of laboratory animals, G.6	
Assistant for laboratory animals (2), G.2	
Supplies and Equipment	134,000
<u>Training Activities</u>	<u>65,187</u>
Salaries and Allowances	46,087
Professional Staff (2)	
Chief of training activities, P.4	
Translations and publications officer, P.2	
Local Staff (5)	
Assistant for audio-visual aids (2), G.5	
Training assistant, G.5	
Library assistant, G.5	
Secretary, G.4	
Duty Travel	7,100
Supplies and Equipment	12,000
<u>Common Services</u>	25,000
TOTAL	<u>300,000</u>

BUDGET ESTIMATES FOR 1972

1 January - 31 December 1972

<u>Field Advisory Services</u>	<u>157,671</u>
Salaries and Allowances	148,671
Professional Staff (6)	
Consultant on control programs, P.4	
Biostatistician, P.4	
Specialist in zoonoses, P.4	
Epidemiologist/physician, P.4	
Epidemiologist/veterinarian, P.4	
Ecologist, P.4	
Local Staff (4)	
Duty Travel	9,000
<u>Laboratory Services</u>	<u>75,437</u>
Salaries and Allowances	66,496
Professional Staff (2)	
Virologist, P.4	
Food microbiologist, P.4	
Local Staff (6)	
Duty Travel	2,000
Supplies and Equipment	6,941
<u>Training Activities</u>	<u>75,063</u>
Salaries and Allowances	57,263
Professional Staff (2)	
Chief of training activities, P.4	
Translations and publications officer, P.2	
Local Staff (5)	
Duty Travel	3,000
Fellowships	14,800
<u>Common Services</u>	<u>5,000</u>
Local Costs UNDP Project (2nd stage)	16,829
TOTAL	<u>330,000</u>

BUDGET ESTIMATES FOR 1973
1 January - 31 December 1973

<u>Field Advisory Services</u>	<u>163,498</u>
Salaries and Allowances	155,498
Professional Staff (6)	
Consultant on control programs, P.4	
Biostatistician, P.4	
Specialist in zoonoses, P.4	
Epidemiologist/physician, P.4	
Epidemiologist/veterinarian, P.4	
Ecologist, P.4	
Local Staff (4)	
Duty Travel	8,000
<u>Laboratory Services</u>	<u>79,831</u>
Salaries and Allowances	70,374
Professional Staff (2)	
Virologist, P.4	
Food microbiologist, P.4	
Local Staff (6)	
Duty Travel	2,000
Supplies and Equipment	7,457
<u>Training Activities</u>	<u>84,428</u>
Salaries and Allowances	60,628
Professional Staff (2)	
Chief of training activities, P.4	
Translations and publications officer, P.2	
Local Staff (5)	
Duty Travel	3,000
Fellowships	20,800
<u>Common Services</u>	<u>10,000</u>
Local Costs UNDP Project (2nd stage)	<u>25,243</u>
TOTAL	<u>US\$ 363,000</u>

PAN AMERICAN ZONNOSES CENTER
BUDGET FOR 1970 AND PROJECTED BUDGET FOR 1971-1975

Funds	1970	1971	1972	1973	1974	1975
Funds from the regular PAHO/WHO budget	218,724	232,416	255,658	281,224	309,346	340,281
Contributions of the Ministries of Agriculture	-	300,000 ^b	330,000 ^b	363,000 ^b	399,300 ^b	439,230 ^b
Subtotal	218,724	532,416	585,658	644,224	708,646	779,511
Contributions from the United Nations Development Program	323,632 ^a	251,029 ^a	274,894 ^c	274,894 ^c	274,894 ^c	274,894 ^c
Contributions from the Argentine Government	256,936	269,936	283,436	297,436	311,936	327,936
Total	799,292	1,053,381	1,143,988	1,216,554	1,295,476	1,382,341

- a. Funds related to the current project, which is to be completed in January 1972.
- b. Estimated contributions of Ministries of Agriculture to begin in 1971. These funds will be used to meet the budgetary costs of the Center, matching the United Nations Development Program contribution for the first stage of the project, and to cover other personnel and equipment costs.
- c. Estimated contribution of the United Nations Development Program to be requested by the Governments for the second stage of the project, in which the Center will be established on a regional basis and its program expanded in accordance with the requests made by the Governments to the Mission.

PROPORTION OF CONTRIBUTIONS OF MINISTRIES OF AGRICULTURE
TO BE USED FOR FINANCING THE EXPANDED PROGRAM
OF SERVICES OF THE PAN AMERICAN ZOOSES CENTER

<u>Country</u>	<u>OAS Scale¹</u> %	<u>1971</u> \$	<u>1972</u> \$	<u>1973</u> \$
Argentina	7.06	20,996	23,096	25,405
Barbados	0.08	238	262	288
Bolivia	0.31	922	1,014	1,115
Brazil	6.76	20,103	22,113	24,326
Chile	1.74	5,174	5,692	6,261
Colombia	1.52	4,520	4,972	5,469
Costa Rica	0.31	922	1,014	1,115
Cuba	1.44	4,282	4,711	5,182
Dominican Republic	0.31	922	1,014	1,115
Ecuador	0.31	922	1,014	1,115
El Salvador	0.31	922	1,014	1,115
Guatemala	0.38	1,130	1,243	1,367
Haiti	0.31	922	1,014	1,115
Honduras	0.31	922	1,014	1,115
Jamaica	0.38	1,130	1,243	1,367
Mexico	6.60	19,627	21,590	23,750
Nicaragua	0.31	922	1,014	1,115
Panama	0.31	922	1,014	1,115
Paraguay	0.31	922	1,014	1,115
Peru	0.75	2,230	2,453	2,699
Trinidad and Tobago	0.31	922	1,014	1,115
United States of America	66.00	196,273	215,900	237,490
Uruguay	0.68	2,022	2,224	2,448
Venezuela	3.20	9,516	10,468	11,516
	100.00	297,383	327,121	359,833

Other Member and Participating Governments

	<u>Equivalent</u> <u>Percentages</u>			
France	0.22	654	720	792
Guyana	0.21	625	687	756
Kingdom of the Netherlands	0.19	565	622	683
United Kingdom	0.26	773	850	936
		2,617	2,879	3,167
		300,000	330,000	363,000
		=====	=====	=====

¹The Pan American Health Organization, in accordance with its constitutional provisions, applies the assessment scale adopted by the Council of the Organization of American States.

ANNEXES

(TRANSLATION)

ANNEX I

MINISTRY OF AGRICULTURE

G. M. N^o 0895/Br.

Brasilia

28 November 1969

Sir:

I have the honor to inform you that the Mission composed of Dr. Enrique García Mata and Dr. Rubén A. Lombardo, appointed by you for the purpose of unifying the efforts of the Ministries of Agriculture and the Pan American Zoonoses Center, for the effective control of zoonoses, has come to an understanding with this Department of State.

In this connection, I have the pleasure of informing you of the intention of this country to collaborate with the other

Dr. Abraham Horwitz
Director
Pan American Health Organization


G. H. nº 0895 /Br.

28-11-51

Senhor Diretor

Tenho a honra de dirigir-me a Vossa Excelência, para participar-lhe que, a missão integrada dos Doutores ENRIQUE GARCIA MATA e RUBEM A. LOMBARDO, designada por Vossa Excelência, com a finalidade de unir esforços dos Ministérios de Agricultura e do Centro Panamericano de Zoonoses, a fim de realizar um efetivo combate às doenças desse tipo, manteve os necessários entendimentos com esta Secretaria de Estado.

Na oportunidade, apraz-me manifestar-lhe os propósitos desta Pasta, de colaborar com os demais países


A Sua Excelência o Senhor Doutor ABRAHAM HORWITZ
MD. Diretor da Organização Panamericana de Saúde

countries in providing the necessary funds to enable the above-mentioned Center to expand its activities in such a way that they benefit the national economies and the health of the peoples of the Americas.

I have the honor to be, Sir,

Yours respectfully,

ses, no sentido de proporcionar meios necessários para que o mencionado Centro possa ampliar suas atividades de forma a beneficiar a economia e a saúde dos povos das Américas.

Valho-me do ensejo para apresentar-lhe renovados protestos de estima e consideração.

H. J. Termini

(TRANSLATION)

ANNEX 2

REPUBLIC OF VENEZUELA
MINISTRY OF AGRICULTURE AND LIVESTOCK
Livestock Department
Office of the Director

Caracas
2 December 1969

Dr. Abraham Horwitz
Director
Pan American Sanitary Bureau
Washington, D. C.
U. S. A.

Sir:

Early this month we received a visit from Dr. Enrique García Mata and Dr. Rubén Lombardo, members of a mission from the Pan American Zoonoses Center, to coordinate with the various Latin American Government agencies the implementation of the operative part of Resolution VIII of the II Inter-American Meeting at the Ministerial Level on the Control of Foot-and-Mouth Disease and Other Zoonoses, which deals with the control of zoonoses as an integral part of agricultural development.

We have heard with great interest the proposals of these two distinguished Delegates and informed them, after hearing the favorable opinion of the experts of this Ministry which coincide with my personal view on this matter, of my support of the proposed financing of the Pan American Zoonoses Center on such general terms and conditions as will be discussed in Buenos Aires next year.

We do so because we are convinced of the vital importance of ensuring the continuity of the operations of the above-mentioned Center for the livestock economy of the Continent and because it is in accordance with the position taken by Venezuela, namely that, in order to have an agency for controlling zoonoses, the efforts of sister nations must be coordinated.

To bring this decision to your attention, I firmly endorse the proposal before the Pan American Sanitary Bureau and send you my best personal regards.

I have the honor to be, Sir,

Yours respectfully,

Rafael Daniel Costés
Minister of Agriculture and Livestock



MINISTERIO DE AGRICULTURA Y CRIA

DIRECCION de Ganadería
Oficina del Director

ANEXO - 2

No. Gan.

Caracas,

28 DIC 1969

Señor
Doctor Abraham Horwitz
Director de la Oficina Sanitaria Panamericana
Washington, D. C
U S. A -

En los primeros días del corriente mes, hemos tenido la grata visita de los doctores Enrique García Mata y Rubén Lombardo, quienes vienen en misión del Centro Panamericano de Zoonosis, coordinando con los varios organismos gubernamentales latinoamericanos, el cumplimiento de la parte resolutive de la Resolución VIII, de la II Reunión Interamericana, a Nivel Ministerial, sobre el Control de la Fiebre Aftosa y Otras Zoonosis, que trata sobre el control de las zoonosis como elemento Integral del Desarrollo Agropecuario.

Con sumo interés he oído los planteamientos de los dos distinguidos Delegados y atendiendo a los mismos, con la opinión favorable de los técnicos del Despacho, que coincide con mi criterio personal al respecto, su adhesión al proyecto de financiamiento del Centro Panamericano de Zoonosis, en los términos y condiciones generales que se discutirán en Buenos Aires el año próximo.

Esto lo expresamos convencidos de la extraordinaria importancia de la continuidad de actividades del referido Centro, para la economía pecuaria del Continente, y consecuentes con la posición mantenida por Venezuela de integración de esfuerzos con nuestras naciones hermanas, para contar con un organismo imprescindible en la lucha contra las enfermedades animales transmisibles al humano.

Al hacer de su conocimiento esta decisión, formulo votos por el éxito de su gestión al frente de la Oficina Sanitaria Panamericana y por su ventura personal.

Atentamente,

Rafael Daniel Costes

Ministro Encargado de Agricultura y Cría.

CC/mdvs.
2-12-69.-

este documento puede manejarse en la Dirección de donde procede. Indecida en el. Procurese no tratar más de un asunto en cada comur.

(TRANSLATION)

ANNEX 3

Republic of Colombia
Ministry of Agriculture

Bogotá
8 January 1970

Dr. Rubén A. Lombardo
Pan American Zoonoses Center
Buenos Aires, Argentina

Sir:

Concerning our recent conversation here in Bogotá, I wish to express, in principle, that the Government of Colombia is interested in active participation in the programs of the Pan American Zoonoses Center and their support.

At this time I want to express my appreciation to you for visiting Colombia and wish you success in your endeavors.

Sincerely yours,

Armando Samper Gnecco
Minister of Agriculture

Bogotá, D. E.

ANEXO - 3


Señor Doctor
Rubén A. Lombardo
Centro Panamericano de Zoonosis
Buenos Aires, Argentina

Estimado doctor :

De acuerdo a las conversaciones sostenidas con usted en su reciente visita a esta ciudad, me permito manifestarle que en principio, el Gobierno de Colombia está interesado en participar activamente en los programas que adelanta el Centro Panamericano de Zoonosis y contribuir a su sostenimiento.

Aprovecho la oportunidad para agradecer a usted la visita que hizo a Colombia y desearle el mayor de los éxitos en las labores que viene desarrollando.

De usted muy atentamente,


Armando Samper Gnecco
Ministro de Agricultura

Ministry of Agriculture and Livestock
Quito, Ecuador

Rev. 2691-CSP

Quito, 8 December 1969

Dr. Abraham Horwitz
Director
Pan American Sanitary Bureau
Washington, D.C.
U.S.A.

Sir:

I am pleased to inform you that today we received a visit from Dr. Enrique Garcia Mata, Dr. Rubén Lombardo, and Dr. Benjamin Morán, the members of a mission of the Pan American Sanitary Bureau, Pan American Zoonoses Center, to urge the various Latin American Government agencies to comply with the operative part of Resolution VIII, of the II Inter-American Meeting at the Ministerial Level on the Control of Foot-and-Mouth Disease and Other Zoonoses, in particular the control of zoonoses as an integral part of agricultural development.

Both the Directors of the Units of this Ministry concerned with the matter and I listened with great interest to the proposals and have agreed to share in the proposed financing of the Pan American Zoonoses Center on such general terms and conditions as will be discussed in April next year in Buenos Aires.

We are convinced of the importance of ensuring the operation of the above-mentioned Center since agencies of this kind, with clearly defined multinational policies, help to establish close relations between the countries, to shape the Latin American community and, by coordinating our efforts, help to promote the well-being of our society.

In further clarifying this decision, I firmly endorse the proposal before the Pan American Sanitary Bureau at this time and send you my best personal regards.

I have the honor to be, Sir,

Yours respectfully,

Dr. Angel Duarte Valverde
Minister of Agriculture and Livestock



MINISTERIO DE AGRICULTURA
Y GANADERIA
QUITO - ECUADOR

ANEXO - 4

Of. 2691-CSP

Quito, 8 de diciembre de 1.969.

Señor Doctor
D. Abraham Horwitz
DIRECTOR DE LA OFICINA SANITARIA PANAMERICANA
Washington, D.C.
U.S.A.

Señor Director:

Tengo el agrado de dirigirme a usted con el objeto de manifestarle que en el día de la fecha hemos tenido la grata visita de los doctores Enrique García Mata, Ruben Lombardo y Benjamín Morán, quienes vienen en misión de la Oficina Sanitaria Panamericana, Centro Panamericano de Zoonosis, incentivando a los varios organismos gubernamentales latinoamericanos, el cumplimiento de la parte puntualizada en la Resolución VIII, de la II Reunión Interamericana, a Nivel Ministerial, sobre el Control de la Fiebre Aftosa y Otras Zoonosis, en especial el control de las zoonosis como parte Integral del Desarrollo Agropecuario.

La Cartera a mi cargo así como los Directivos de las Dependencias que tienen que ver con este asunto han escuchado con mucho interés los planteamientos propuestos habiendo aceptado participar en el proyecto de financiamiento del Centro Panamericano de Zoonosis, en los términos y condiciones generales que se discutirán el mes de Abril del próximo año, en Buenos Aires.

No dudamos de la importancia que tiene asegurar la marcha -- del indicado Centro puesto que Organismos de este tipo, con políticas definidas en el ambito multinacional, acercan más a los pueblos y cristalizan la Comunidad Latinoamericana, que llevan en unidad de esfuerzos a un mejor bienestar de nuestra sociedad.

Al hacer conocer esta decisión, formulo votos por el éxito de su gestión al frente de la Oficina Sanitaria Panamericana a la vez que -- renuevo a usted los sentimientos de mi más alta consideración y estima.

Muy atentamente,

DIOS, PATRIA Y LIBERTAD


Dr. Angel Duarte Valverde
MINISTRO DE AGRICULTURA Y GANADERIA.

ET.
XII-8-69

Peru
Ministry of Agriculture and Fisheries

Lima, 15 December 1969

Ref. N^o 219-69-DG-COI-DM

Dr. Abraham Horwitz
Director
Pan American Sanitary Bureau
Washington, D. C.
U.S.A.

Subject: Mission of the Pan American
Sanitary Bureau, Pan American
Zoonoses Center

Sir:

As was announced, we received a visit from Dr. Enrique García Mata, Dr. Rubén Lombardo, and Dr. Benjamin Morán, with whom we had the pleasure of discussing a number of points concerning the Pan American Zoonoses Center.

Peru is very interested in receiving increasing support from this Institution, with a view to controlling such diseases as brucellosis, hydatidosis, and tuberculosis, which are responsible for heavy losses in our livestock and are a health hazard.

Convinced of the importance of activities for the control and eradication of zoonoses at the Continental level, which are valuable means of improving the economies of our countries and also of achieving regional integration, the Ministry of Agriculture and Fisheries will offer its support, so that the Center may receive a contribution from Peru for its normal operation.

Without additional comments and in the interest of collaborating with the other countries of the Continent on this important task, I send my best personal regards.

I have the honor to be, Sir,

General Jorge Barandiarán Pagador
Minister of Agriculture and Fisheries



MINISTERIO DE AGRICULTURA Y PESQUERIA

ANEXO - 5

Lima, 15 de diciembre, 1969

Oficio N° 69-DG COI-DM

Doctor
D. Abraham Horwitz
Director de la Oficina Sanitaria Panamericana
Washington D. C.
U. S. A.

Asunto: Misión de la Oficina Sanitaria
Panamericana, Centro Paname-
ricano de Zoonosis

Conforme a lo oportunamente anunciado hemos recibido la grata visita de los doctores Enrique García Mata, Rubén Lombardo y Benjamín Morán, con los cuales tuve el placer de conversar sobre diversos asuntos relacionados con el Centro Panamericano de Zoonosis.

El Perú se encuentra sumamente interesado en contar con un apoyo creciente de dicho organismo, con el fin de controlar enfermedades tales como la Brucelosis, la Hidatidosis y la Tuberculosis que producen fuertes pérdidas de nuestra ganadería y representan un riesgo para la salud humana.

Convencidos de la importancia que tienen los trabajos destinados a controlar y erradicar las Zoonosis a nivel continental, por ser importantes medios para mejorar la economía de nuestros países, y asimismo para apoyar la integración de ellos, el Ministerio de Agricultura y Pesquería a mi cargo proporcionará su apoyo para que dicho organismo pueda contar con el aporte peruano para su normal funcionamiento.

Sin otro particular y en la seguridad de poder colaborar con el resto de países del Continente en esta importante tarea, me es grato expresarles los sentimientos de mi consideración distinguida.

Atentamente,

Gral. Jorg Barandiarán Pagador
Ministro de Agricultura y Pesquería

Ministry of Agriculture and Livestock

Montevideo
21 January 1970

Dr. Abraham Horwitz
Director
Pan American Sanitary Bureau
Washington, D. C.
U.S.A.

Sir:

We received a visit from Dr. Rubén Lombardo and Dr. Juan Tomas Bowler, who, in fulfillment of the mission entrusted to them by the Pan American Zoonoses Center, are attempting to coordinate the efforts of the Ministries of Agriculture in Latin America, in order to implement the operative part of Resolution VIII of the II Inter-American Meeting, at the Ministerial level, on the Control of Foot-and-Mouth Disease and Other Zoonoses.

This Ministry listened to the distinguished representatives of the Center and, after hearing the opinion of the technical units of the Ministry, wishes to inform you of our favorable sanction of the project, as to both its purpose and the aspects relating to financing.

I wish to announce the position of the Ministry on this proposal and express my best regards to you.

I have the honor to be, Sir,

Yours respectfully,

Juan María Bordaberry
Minister of Livestock and Agriculture



Ministerio de Ganadería y Agricultura

ANEXO 6

Montevideo, enero 21 de 1970.-

Señor Doctor

D. Abraham Horwitz

DIRECTOR DE LA OFICINA SANITARIA PANAMERICANA

Washington, D.C.

U.S.A.

Señor Director:

Hemos recibido la visita de los Dres. Ruben Lombardo y Juan Tomás Dowler quienes, en cumplimiento de la misión encomendada por el Centro Panamericano de Zoonosis, procuran coordinar a los Ministerios de Agricultura latinoamericanos para la ejecución de la parte dispositiva de la Resolución VIII de la II Reunión Interamericana, a Nivel Ministerial, sobre el Control de la Fiebre aftosa y otras Zoonosis.

Este Ministerio oyó a los distinguidos Representantes y con la opinión de las dependencias técnicas a su cargo, hacen llegar a Vd. su disposición favorable para el Proyecto tanto en su finalidad, como en los aspectos relativos a su financiamiento.-

Al poner en su conocimiento la posición de este Ministerio, aprovecho para expresarle mis sentimientos de alta consideración y estima.-

JUAN MARIA BORDABERRY
Ministro de Ganadería y Agricultura

(TRANSLATION)

ANNEX 7

Paraguay
Ministry of Agriculture and Livestock
Centenary of the National Epic
1864 - 1870

S/Nº 28

Asunción
30 January 1970

Dr. Abraham Horwitz
Director
Pan American Sanitary Bureau
Washington, D. C.
U.S.A.

Sir:

As a result of the recent conversation we had with Dr. Rubén A. Lombardo and Dr. Juan Tomas Bowler, members of a mission from the Pan American Zoonoses Center, in compliance with Resolution VIII of the II Inter-American Meeting at the Ministerial Level, held recently in the city of Rio de Janeiro, I am pleased to inform you as follows:

1. My Ministry attaches great importance and significance to the work of the Pan American Zoonoses Center.
2. The special field of competence and the assistance rendered by that Center relates to an area of undoubted technical and economic importance for Paraguay, which warrants the interest we have always shown in the activities of that Center.
3. I am therefore pleased to inform you that we view with sympathy the question put to us by the above-mentioned officials concerning the possibility of an annual financial contribution by Paraguay in support of the Center on such terms and conditions as will be discussed at the next meeting in Buenos Aires.

I have the honor to be, Sir,

Yours respectfully,

Eng. Hernando Bertoni
Minister

Ministerio de Agricultura y Ganadería

Centenario de la Epopeya Nacional
1.864 - 1.870

Asunción, 30 de enero de 1970.

S/No. 29...

Señor
Doctor Abraham Horwitz
Director de la Oficina Sanitaria Panamericana
Washington D.C.
U.S.A.

De mi consideración:

Como consecuencia de la conversación mantenida últimamente con los Dres. Rubén A. Lombardo y Juan Tomás Bowler, enviados del Centro Panamericano de Zoonosis en cumplimiento de la Resolución VIII de la 2a. Reunión Interamericana a nivel ministerial realizada últimamente en la ciudad de Río de Janeiro, me place manifestarle lo siguiente:

- 1º. El Ministerio a mi cargo atribuye a la labor que cumple el Centro Panamericano de Zoonosis, la importancia y trascendencia que realmente exhibe;
- 2º. La competencia y la cobertura asistencial de dicho Centro inciden en un campo de indudable significación técnica y económica para el Paraguay, fundamentando así el interés que siempre hemos demostrado por las actividades de dicho Centro;
- 3º. Por tales razones, me place expresar a usted la simpatía con que acogemos la consulta formuládanos por los funcionarios arriba mencionados, en el sentido de la posibilidad de un aporte financiero anual del Paraguay para el sostenimiento del Centro, sobre las bases y condiciones que habrán de ser discutidas en la próxima reunión de Buenos Aires.

Acepte el Sr. Director los testimonios de mi más distinguida consideración.



Rabón
Hernando Bertoni
MINISTRO

(TRANSLATION)

ANNEX 8

Bolivia

La Paz
18 March 1970

Dr. Abraham Horwitz
Director
Pan American Sanitary Bureau
Washington, D. C.
U.S.A.

Sir:

Relative to the letter we received about the mission of Drs. Bowler and Lombardo, I take pleasure in informing you that this Ministry agrees to participate in the financing of the Pan American Zoonoses Center, considering the activities of the Center that will be expanded for the control of the zoonoses.

Accordingly, I agree that the method of this contribution will be discussed and fixed in the III Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control, to be held in April in Buenos Aires and at which I shall assist.

Yours respectfully,

Dr. José Luis Roca García
Minister of Agriculture

S T G. 19/70

La Paz, 18 de marzo de 1970

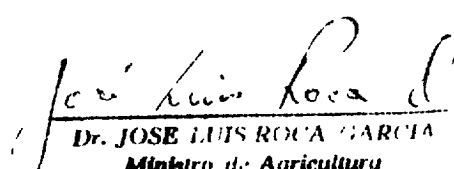
Al señor
Dr. Abraham Horwitz,
DIRECTOR REGIONAL DE LA OSP/OMS
Washington, D.C
EE UU.

Senor Director:

En relación a la carta que nos fué entregada por la Misión Bowler-Lombardo tengo el agrado de comunicar a usted que éste Ministerio está de acuerdo en participar del financiamiento del Centro Panamericano de Zoonosis, teniendo en cuenta que las actividades del CEPANZO serán incrementadas en el control de las enfermedades zoonóticas.

Asimismo, estoy de acuerdo en que el monto de esta contribución sea discutido y fijado en la III Reunión sobre Control de Fiebre Aftosa y otras zoonosis que se llevará a cabo en Abril próximo en Buenos Aires y a la cual asistiré.

Aprovecho la oportunidad para reiterar a usted las seguridades de mi consideración más distinguida


Dr. JOSE LUIS ROCA GARCIA
Ministro de Agricultura

(TRANSLATION)

ANNEX 9

REPUBLIC OF PANAMA

Ministry of Agriculture and Livestock
Office of the Minister

Panama City, Panama

29 January 1970
DMN-N^o 70-250

Dr. Abraham Horwitz
Director
Pan American Sanitary Bureau
Washington, D. C.
U.S.A.

Sir:

I am pleased to inform you that today we received a visit from Dr. Juan T. Bowler and Dr. Rubén Lombardo, representing the Pan American Sanitary Bureau, Pan American Zoonoses Center, for the purpose of clarifying with us the implementation of the operative part of Resolution VIII of the II Inter-American Meeting at the Ministerial level on the Control of Foot-and-Mouth Disease and Other Zoonoses, in particular the control of zoonoses as an integral part of agricultural development.

Since our Government is aware of the importance of the animal health programs and since our country has been making special efforts to carry out as efficiently as possible measures to protect our national livestock, I wish to inform you that our country is prepared to share in and contribute to the development of the programs and activities, mentioned by Drs. Bowler and Lombardo.

In expressing my desire for achieving the objective of the proposal before the Pan American Sanitary Bureau, I send you my best regards.

I have the honor to be, Sir,

Yours respectfully,

Carlos E. Landau
Minister of Agriculture and Livestock

*República de Panamá**Ministerio de Agricultura y Ganadería**Despacho del Ministro**Panamá, R. de P.*

29 de enero de 1970

DMN-No.70-250

Señor Doctor
D. Abraham Horwitz
Director
Oficina Sanitaria Panamericana
Washington, D. C.
U. S. A.

Señor Director:

Pláceme dirigirme a usted con el objeto de llevar a su digno conocimiento, que en el día de hoy hemos tenido la visita de los Dres. Juan T. Bowler y Rubén Lombardo, quienes han venido en representación de la Oficina Sanitaria Panamericana, Centro Panamericano de Zoonosis, a fin de gestionar ante nosotros el cumplimiento de la parte puntualizada en la Resolución VIII, de la II Reunión Interamericana, a Nivel Ministerial, sobre el Control de la Fiebre Aftosa y otras Zoonosis, en especial el control de las zoonosis como parte integral del desarrollo agropecuario.

Como quiera que nuestro Gobierno es consciente de la importancia de estos programas de sanidad pecuaria, y que en nuestro país se vienen realizando esfuerzos especiales por mantener en ejecución lo más eficientemente posible medidas de protección a la ganadería nacional, nos permitimos expresar a usted que nuestro país está dispuesto a participar y contribuir al desarrollo de los programas y actividades mencionados por los Dres. Bowler y Lombardo.

Haciendo votos por el éxito permanente de su gestión al frente de la Oficina Sanitaria Panamericana, se suscribe con toda consideración y aprecio,

CARLOS E. LANDAU
Ministro de Agricultura
y Ganadería

CEL/yep

(TRANSLATION)

ANNEX 10

Ministry of Agriculture and Livestock
San José, Costa Rica

N. 154 M.
4 February 1970

Dr. Abraham Horwitz
Director
Pan American Sanitary Bureau
Washington, D. C.
U.S.A.

Sir:

I acknowledge receipt of your letters AMRO-0700SM of 8 January and PER/CONF/CL-2-70 of 15 January, for which I thank you. With respect to the former, I wish to inform you that I had the pleasure of a visit by Dr. Rubén Lombardo and Dr. Juan Bowler to the Ministry. Together with the Officials of this Ministry responsible for the activities of the Animal Health and General Services, we listened to the detailed statement of Drs. Lombardo and Bowler, especially in relation to Resolution VIII of the II Inter-American Meeting at the Ministerial Level, on the Control of Foot-and-Mouth Disease and Other Zoonoses, held in May 1969. Concerning the subject matter of that Resolution, we heard the proposals for the future programs to be undertaken by the Pan American Zoonoses Center, with a view to expanding its services to Latin American countries.

The Pan American Zoonoses Center has undoubtedly rendered valuable service in solving problems related to zoonotic diseases which greatly affect the public health and the livestock economy of our country, and of other Latin American countries, and it has thus helped to improve social and economic conditions in our countries.

My Ministry is prepared to share in the proposed financing of the Pan American Zoonoses Center on such general terms and conditions as will be discussed and agreed upon at the next Latin American Meeting at the Ministerial Level on the Control of Foot-and-Mouth Disease and Other Zoonoses which will be held in April in Argentina.

I take great pleasure in announcing this decision, expressing my desire for your personal welfare in the execution of your distinguished office.

I have the honor to be, Sir,

Yours respectfully,

Guillermo E. Yglesias P.
Minister of Agriculture and Livestock

cc: Director General of Services
cc: Deputy Director General of
Service



MINISTERIO
DE AGRICULTURA Y GANADERIA

ANEXO - 10

SAN JOSE COSTA RICA

N. 154 M.

Febrero 4, 1970.

Señor
Dr. Abraham Horwitz, Director
Oficina Sanitaria Panamericana
WASHINGTON D.C. 20037 USA.

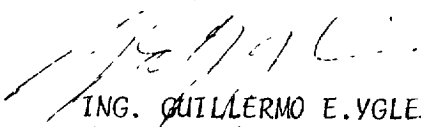
Estimado señor Director:

Tengo el gusto de acusar recibo de sus notas Ns. AMRO-0700SM del 8 de enero y la N. PER/CONF/CL-2-70 de fecha 15 de enero, lo cual agradezco. En relación a la primera, hoy me permito comunicarle que he tenido el gusto de recibir a los doctores, Rubén Lombardo y Juan Bowler en mi despacho y en presencia de los funcionarios de este Ministerio que dirigen nuestras actividades en la Dirección General de Servicios y en Sanidad Animal, hemos escuchado la documentada exposición de los doctores Lombardo y Bowler en particular en lo referente a la resolución VIII, de la 2º Reunión Interamericana a nivel ministerial, sobre el Control de la Fiebre Aftosa y otras zoonosis, -- realizada en mayo del año 69. Sobre el contenido de esta misma resolución -- escuchamos los planteamientos para futuros programas del Centro Panamericano de Zoonosis en pro de una ampliación de sus servicios para estos países latinoamericanos.

No cabe la menor duda de que dicho Centro con carácter panamericano, ha --- prestado valiosa colaboración en la resolución de problemas con enfermedades zoonóticas que inciden enormemente en la salud pública u en gran manera en la economía pecuaria de nuestro país, así como en la de los demás países latinoamericanos, lo que equivale a un mejoramiento de las condiciones sociales y económicas de los mismos pueblos.

El Ministerio de mi cargo ofrece a usted, Señor Director, participar en el proyecto de financiamiento del Centro Panamericano de Zoonosis en la forma y términos generales que se discutirán y acordarán en la próxima reunión Latinoamericana a nivel ministerial sobre el control de la Fiebre Aftosa y otras Zoonosis que se celebrará en abril del presente año en Argentina.

Al tener el gusto de hacer de su conocimiento esta decisión, formulo votos por su bienestar personal y el buen éxito en el desempeño de su alta y delicada posición, suscribome del señor Director con toda consideración,


ING. GUILLERMO E. IGLESIAS P.
Ministro de Agricultura y Ganadería

cc; Sr. Director General de Servicios
cc: Sr. Sub-Director General de Servicios

(TRANSLATION)

ANNEX 11

Republic of Nicaragua
Ministry of Agriculture and Livestock
Managua, D. N.

5 February 1970

Dr. Abraham Horwitz
Director
Pan American Sanitary Bureau
Washington, D. C.
U.S.A.

Sir:

In view of the statement made to me today by Dr. Enrique García Mata and Dr. Rubén Lombardo, I am pleased to inform you that this Ministry is very happy to support the proposed financing of the Pan American Zoonoses Center on such conditions as will be discussed at Buenos Aires next year.

The statement of this Ministry of Agriculture and Livestock is a further expression of its spirit of cooperation and of its conviction that we must join our efforts in all fields for the benefit of the countries of the Americas.

Since I have endorsed the achievement of the project, I take this opportunity to send you my best regards and personal appreciation.

I have the honor to be, Sir,

Yours respectfully,

Alfonso Lovo Cordero
Minister of Agriculture and Livestock



MINISTERIO DE AGRICULTURA
Y GANADERIA

Managua, D. N.

5 de febrero de 1970

Señor
Doctor Abraham Horwitz
Director de la
Oficina Sanitaria Panamericana
Washington, D.C.,
Estados Unidos de América

Señor Director:

En virtud de la exposición que me han hecho, el día de hoy, los distinguidos doctores: Enrique García Mata y Rubén Lombardo, me place manifestarle que, este Despacho, con el mayor agrado, extiende su apoyo al proyecto de financiamiento del Centro Panamericano de Zoonosis, en la forma en que habrá de discutirse en Buenos Aires, el año próximo.

El pronunciamiento del Ministerio de Agricultura y Ganadería, es una manifestación más de su espíritu de cooperación y de su convicción de que la unidad de esfuerzos debe mantenerse en todos los órdenes, para beneficio de nuestros países americanos.

Desde ya formulo votos por el éxito del proyecto y hago propicia la ocasión para renovarle las seguridades de mi más distinguida consideración y especial aprecio personal.


Alfonso Lora Cordero,

Ministro de Agricultura y Ganadería.

cc:
arch.o.f.
rlz/gc.



(TRANSLATION)

MINISTRY OF AGRICULTURE

NATIONAL PALACE

GUATEMALA, C. A.

Guatemala City, 10 February 1970

Dr. Abraham Horwitz
Director
Pan American Sanitary Bureau
Washington, D. C.
U.S.A.

Sir:

I am pleased to inform you that I received a visit from Dr. Juan T. Bowler and Dr. Rubén Lombardo, representing the Pan American Sanitary Bureau, Pan American Zoonoses Center, for the purpose of arranging for the implementation of Resolution VIII of II Inter-American Meeting on the Control of Foot-and-Mouth Disease and Other Zoonoses as an integral part of agricultural development.

The government of Guatemala, fully convinced of the need to deal with various aspects of animal health programs for the protection of the national livestock, has always cooperated in such activities. Consequently, I am pleased to inform you that this country is very willing to cooperate and to share in the development of the important program activities described by the representatives of the Center, Drs. Bowler and Lombardo, to whom I expressed my best wishes for the success of their mission.

I have the honor to be, Sir,

Yours respectfully,

Francisco Montenegro Girón
Minister of Agriculture



MINISTERIO DE AGRICULTURA

PALACIO NACIONAL

GUATEMALA, C. A.

ANEXO - 12

Guatemala, 10 de febrero de 1970.

Doctor D. Abraham Horwitz,
Director de la Oficina
Sanitaria Panamericana,
WASHINGTON, D. C.,
Estados Unidos.

Señor Director:

Me complace manifestarle, que he recibido la visita de los Doctores Juan T. Bowler y Rubén Lombardo, representantes de la Oficina Sanitaria Panamericana, Centro Panamericano de Zoonosis, con el objeto de gestionar para que se proceda conforme a la Resolución VIII de la Segunda Reunión Interamericana sobre el Control de la Fiebre Aftosa y otras Zoonosis, como parte integral del desarrollo agropecuario.

El Gobierno de Guatemala, compenetrado de la necesidad de atender en sus diversos aspectos los programas de sanidad pecuaria, en defensa de la ganadería nacional, ha cooperado siempre en tales actividades. De consiguiente, me es grato hacer de su conocimiento que este país se halla en la mejor disposición de cooperar y participar en el desarrollo de los importantes programas y labores descritos por los delegados de esa entidad, Doctores Bowler y Lombardo, a quienes auguré todo éxito en su misión.

Aprovecho esta oportunidad para suscribirme de usted, con renovadas muestras de aprecio, atentamente.



Francisco Montenegro Girón
FRANCISCO MONTENEGRO GIRÓN
Ministro de Agricultura