The First Meeting of The Directing Council of the Pakistan-SEATO Cholera Research Laboratory was called to order by The Director of The Cholera Research Laboratory (CRL) shortly before 1000 on 26 February 1962. In attendance were:

MEMBERS OF COUNCIL:

Brig. M.C. Hyder	-	Representative of the Government of Pakistan
Dr. Lewis H. Hoyle	-	Representative of the Government of the United States of America
Capt. R.A. Phillips	-	Representative of the Director of the National Institutes of Health, United States Department of Health, Education and Welfare.
Mr. William Worth	-	Representative of the Secretary General of SEATO.
Dr. Fred L. Soper	-	Director of the Pakistan-SEATO Cholera Research Laboratory (Ex Officio Secretary of the Directing Council).

OFFICIAL OBSERVERS:

Dr. Jacinto Dizon	-	Republic of Philippine.
Dr. D.J.M. MacKenzie	-	Government of the United Kingdom.

OTHERS PRESENT:

Dr. Joe L. Stockard	-	Deputy Director, Pakistan-SEATO Cholera Research Laboratory.
Dr. Robert S. Gordon	-	Chief, Clinical Research Section, Pakistan-SEATO Cholera Research Laboratory.
Dr. K.A. Monsur	-	Director, Institute of Public Health, Government of East Pakistan; Consultant to the Bacteriology Section, Pakistan-SEATO Cholera Research Laboratory.
Dr. A.H. Taba	-	Regional Office of World Health Organization for the Eastern Mediterranean.
Dr. M. DeMarchi	-	Area Representative World Health Organization.

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1. After explanatory remarks by The Director (CRL), The Council appointed Brigadier Hyder Temporary Chairman.

2& 3. By unanimous vote Brigadier Hyder and Dr. Lewis H. Hoyle were elected Chairman and Vice Chairman, respectively.

4. The Chairman then appointed Captain Phillips as Rapporteur.

5. The Rules of Procedure - Document DC 1/13 was approved as ammended. *

6. The Agenda (DC 1/12) as amended was unanimously approved.

7. The Chairman called on The Director, (CRL) whose remarks appear as DC 1/14.

Capt. Phillips requested clarification of the specific matters to be decided by the Directing Council at its First Meeting. The Director, CRL, stated that he considered positive action necessary on Financial Regulations and Audit (DC 1/3) and on the Participation of SEATO Nations in the CRL (DC 1/2). In addition the Council should decide on the date of or means for selecting the date of the next meeting of this Council.

8. At the request of the Chairman, the Director, CRL, read to the Council Document DC 1/1, but not the Annex thereto, since these are all legal documents.

Mr. Worth then recommended placing DC 1/1 in the records of this Council meeting.

Mr. Worth also recommended including the following statement on the SEATO Medical Research Laboratory in Bangkok:

"By invitation of the Royal Thai Government, several groups of civilian and military scientists were working on a short term basis in Bangkok on different aspects of cholera. With the launching of the SEATO Cholera Research programme these efforts were drawn together in November 1959 in the Thailand SEATO-Cholera Research Laboratory. This laboratory continued to operate until December 1960 under the SEATO-Cholera Programme, but with the opening of the Dacca Laboratory, the Bangkok centre was transformed into a general Medical Research Institute."

9. At the request of Mr. Worth, consideration of Item 9 (DC 1/2) was deferred.

10. At the request of the Chairman, The Director, CRL, read to the Council DC 1/5.

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*Documents DC 1/1 to DC 1/14 are included in the appendix as amended by the Directing Council.

Mr. Worth proposed and the Council approved the following:

The Directing Council recognizes, on the basis of Annex IV, DC 1/1, Section C, Paragraph 1, that the NIH is responsible for the appointment of both a Director and a Deputy Director of the Cholera Research Laboratory. Further it recognizes the responsibility of the NIH to the position of the Deputy Director in all instances in which the Deputy Director is Acting Director.

11. At the request of the Chairman, the Director, CRL, read DC 1/3.

ACTION: The Directing Council approves the recommendations of DC 1/3 until the next Council meeting. Further, at the next Council meeting, the Director, CRL, will present precise and complete Financial Regulations and Practices for Council approval.

12. Following the recommendation of the Director, CRL, the Chairman requested that DC 1/6 be presented by Dr. K.A.Monsur:

The importance of this study was brought to the attention of the Council by the Director, CRL.

The Directing Council wishes to commend Dr. Monsur and to go on record that contributions such as this one should be fostered.

13. Following the recommendation of the Director, CRL, the Chairman requested that DC 1/7 be commented upon by Dr. R.S. Gordon, who prepared the report.

14. At the request of the Chairman, DC 1/4 was read by the Director, CRL.

The Director, CRL, in response to a query, pointed out that according to Annex IV, DC 1/1, Section C, Paragraph 3, the CRL Technical Committee will review the Scientific Program of CRL and their report and recommendations will be presented to the Directing Council prior to its next Annual Meeting.

15. At the request of the Chairman, The Director, CRL, commented on DC 1/8.

Mr. Worth asked that the following should be incorporated into the records of this session:

1. The CRL Technical Committee shall be responsible to provide the Directing Council with evaluation of, and recommendation for, the CRL Research Program.

2. It is the responsibility of the Director, CRL, and the CRL Technical Committee, to assure that all necessary and reasonable advice be obtained on the experimental design and the prosecution of all research projects.

16. At the recommendation of the Director, CRL, the Chairman requested Dr. R.S. Gordon, who prepared DC 1/10, to present this report.

Mr. Worth inquired if the Director, CRL, believed that the present administrative and fiscal staff provided adequate support to the Director, CRL. The answer was in the affirmative.

Mr. Worth reminded the Directing Council of the availability of SEATO resources in administrative and fiscal guidance and support.

17. Upon the recommendation of the Director, CRL, the Chairman requested that Dr. J.L. Stockard present Document DC 1/9.

Mr. Worth commented on this item, and requested that the scales of pay and allowances be reviewed, and this review be reported at the next Annual Meeting of the Council. He further urged the Pay Scale and Allowances be adequate to assure the acquisition of an excellent permanent staff.

Dr. Stockard stated that other fringe benefits are under consideration.

18. Upon the recommendation of the Director, CRL, the Chairman requested that Dr. R.S. Gordon present Budget Document (DC 1/11).

Mr. Worth urged the continuing scrutiny of the real need for personnel employed in administrative positions.

The Directing Council notes that allocated Rupee Funding, and that funding provided for by existing agreements, are adequate for anticipated needs of operations in East Pakistan.

19. At the request of the Chairman, Dr. Dizon summarized the Cholera experience in the Philippines for the Council.

At the request of the Chairman, Dr. MacKenzie made salient comments on Cholera experience in Hongkong for the Council.

20. At the request of the Chairman, the Director, CRL, read DC 1/2.

Following general discussion the Council acted on the following two items:

a. Dr. MacKenzie reminded the Council of the British Government's interest in Cholera as a member of SEATO, and also as a fellow member with Pakistan in the Commonwealth. In 1961 this interest was expressed in the contribution of equipment to the value of £10,000/-/-(stg.). The British Government would be able to provide two (2) scientists to work under the Director, CRL, and the British Government is prepared to spend up to £10,000/-/- (stg.) for their expenses in the next fiscal year, commencing April 1, 1962. These scientists might well be experts in bacteriology and in water biology.

The Directing Council warmly welcomed the promised of support by the United Kingdom, and authorized the Director to complete with the appropriate United Kingdom authorities, the necessary arrangements to implement the proposed support.

It further authorized the Chairman of the Council to invite the United Kingdom Government, as a participant nation, to nominate a representative of the United Kingdom to act as a member of the Directing Council.

b. The Council warmly welcomed the expression of interest in possible participation by the Government of the Philippines, and authorized the Director to consult with the appropriate officials in the Philippines concerning the nature and extent of their possible participation.

21. a. The Director, CRL, spoke on the subject of the time of the next meeting.

Mr. Worth proposed that the time and place of the next Annual Meeting be left to the Chairman of the Directing Council with the advice of the Director, CRL.

b. The Directing Council approved the proposal that transportation costs of members of the Directing Council to and from the Annual Meeting be borne by the CRL from any funds available to the Director not otherwise restricted.

c. The Director of CRL expressed his appreciation of the work of the Directing Council under difficult conditions. The Director expressed his admiration of the celerity with which Brigadier Hyder had conducted the meetings. The Director also emphasized the close relationship which must exist between the CRL and the Health Services of East Pakistan and signalized the key position of Brigadier Hyder in regard to the CRL, as Chairman of the Council and as Director of Health Services of East Pakistan. Dr. Soper expressed his regret at leaving the CRL at this time, but declared his satisfaction at being able to leave with the CRL free to develop a flexible international research program with adequate financing guaranteed for the next 18 months.

d. The Chairman of the Directing Council desired to:

"Place on record how fortunate the Cholera Research Laboratory has been to have Dr. Soper as our first Director. His broad vision, wide experience and unswerving energy, have resulted in a magnificent achievement and in accomplishments that might not have been anticipated."

The Meeting adjourned at 1650, 27 February 1962.

R.A. Phillips,
Rapporteur.

True Copy

RAP:Pcb.

Proposed addition to the record of the CRL Directing Council
1st Meeting, February 26 - 28, 1962

MR. WILLIAM WORTH

Having noted the expressed desire of the Governments of Pakistan and the United States in Section I of the Agreement signed by them on December 30, 1961 to govern the SEATO-Pakistan Cholera Research Laboratory, to welcome and encourage other SEATO nations to join as participants in the CRL, and having further noted that the agreement provides that the participation of other SEATO nations in the CRL would be the subject of consultation within the SEATO Council Representatives, the Directing Council of the CRL proposes that the SEATO Council Representatives should determine, as soon as possible, the basis for participation by other SEATO nations in the CRL.

2. The Directing Council believes that in such consultation the Council Representatives should bear in mind the following matters:

(a) The need to build up a permanent laboratory in an area where cholera is endemic (e.g. in Pakistan).

(b) The need for long term continuous research by the most highly qualified scientists it is possible to obtain, if real progress is to be made in reaching the primary objective.

3. In light of these considerations the Directing Council suggests that a participant member nation might well be defined as a nation which provides the necessary support for 1 senior and 1 junior scientist in continuous residence in the CRL, or alternatively the provision of funds for the General Operating Fund as provided in Section D. 1 (b) of the Agreement. In this respect the availability of hard currency funds for overseas procurement is highly desirable. The Directing Council suggests a contribution $25,000 (U.S) in "no year" funds might be set as the target for each participant member nation.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

First Meeting Of The

DIRECTING COUNCIL

Dacca, East Pakistan
February 1962

DC 1/12
February 25, 1962.

DRAFT AGENDA

1.	Meeting called to order by Director CRL - appointment Temporary Chairman.	
2.	Election of Chairman.	
3.	Election of Vice Chairman	
4.	Appointment of Rapporteur	
5.	Adoption of Rules of Procedure	DC 1/13
6.	Adoption of Agenda	DC 1/12
7.	Remarks of Director of CRL.	DC 1/14
8.	Antecedents of the Pakistan-SEATO Cholera Research Laboratory 1959 - 61	DC 1/1
9.	Participation of SEATO Nations in the Pakistan-SEATO Cholera Research Laboratory	DC 1/2
10.	Authority of the Director of CRL	DC 1/5
11.	Financial Regulations and Audit	DC 1/3
12.	Basis of Systematic Routine Bacteriologic Year Round Survey of the Occurrence of Cholera in Given Geographic Areas.	DC 1/6
13.	Status of Medical Research Facilities of the Pakistan-SEATO Cholera Research Laboratory.	DC 1/7
14.	Scope of the Program of the Pakistan-SEATO Cholera Research Laboratory	DC 1/4
15.	Program	DC 1/8
16.	Financial Report	DC 1/10
17.	Scales of Pay & Allowances	DC 1/9
18.	Budget	DC 1/11

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

First Meeting Of The

DIRECTING COUNCIL

Dacca, East Pakistan
February 1962

DC 1/1
February 5, 1962.

ANTECEDENTS OF THE PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY 1959 - 1961.

The SEATO Cholera Research Program

In the years immediately following World War II, cholera was reported over a wide area; from Japan far to the north-east in the Pacific and westward to Egypt in North Africa both far from the traditional endemic seedbeds of the disease in the delta regions facing on the Bay of Bengal. During the partition of the Indian sub-continent cholera was a serious problem in West Pakistan, but apparently disappeared for a number of years after 1949. During the early 1950's reports of cholera were very largely limited to East Pakistan and to India.

This period of relative quiet for cholera was broken abruptly in 1958 by the reappearance of cholera in West Pakistan and in Thailand. The disease spread rapidly from the capital, Bangkok, to some 39 provinces of Thailand. As a direct result of this epidemic the delegate of Thailand to the 1959 SEATO Conference in Wellington, New Zealand, proposed a SEATO Cholera Research Program.

The SEATO Cholera Research Program was initiated through an agreement between the United States Government and the Secretary-General of SEATO on May 29, 1959, (ANNEX I). By the terms of this agreement the United States Government contributed $400,000 to be spent by the National Institutes of Health of the Public Health Service of the Department of Health, Education and Welfare of the United States in the study of cholera in collaboration with institutes in Asia.

The Pakistan-SEATO Cholera Research Laboratory - 1960

Following the rapid spread of cholera in Thailand in 1958 and early 1959, the disease declined rapidly and it was obvious, at the time of the visit of the NIH Cholera Advisory Committee (August 1959), that long term studies of cholera could not be carried out in Bangkok. The Institute of Public Health of East Pakistan at Dacca was chosen as headquarters for cholera studies because of the permanent endemicity of cholera in the delta region of the Ganges and Brahmaputra Rivers.

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On October 14, 1960, the Governments of Pakistan and of the United States signed an agreement creating the Pakistan-SEATO Cholera Research Laboratory as part of the SEATO Cholera Research Program (ANNEX II).

Some laboratory equipment and technical staff had been provided even before the signing of the Agreement with the result that the Bacteriological Section began to function in November some weeks before the official inauguration of the CRL, on December 5, 1960, during the SEATO Conference on Cholera (December 5-8, 1960).

The SEATO Cholera Conference was held as part of the SEATO Cholera Research Program for the purpose of bringing together from other countries up to date information on cholera research needed for the orientation of continuing cholera studies. Unfortunately, the workers of India were not represented.

Among the accomplishments of 1960 one may list (a) the negotiation and signature of the Agreement of October 14, 1960, (b) the selection and training in the United States during a four months' period of a Pakistan scientist to serve as Chief of the Bacteriological Laboratory, (c) the installation of the Bacteriological Laboratory, (d) the SEATO Cholera Conference in Dacca 5-8, 1960 and (e) the contribution of £10,000 by the United Kingdom for the purchase of equipment and supplies for the Cholera Research Laboratory.

The Pakistan-SEATO Cholera Research Laboratory - 1961

Very early in 1961 it became apparent that the Agreement of October 14, 1960, establishing the Pakistan-SEATO Cholera Research Laboratory was not adapted to the development of a flexible expanding program in cholera research. Inadequate provision for budget and staff and the absence of administrative unity created a difficult situation.

Some months elapsed in an unsuccessful attempt to adapt the October 14, 1960, Agreement to the needs of a flexible research effort.

On May 10, 1961, theDirector of the CRL proposed, to the Governments of Pakistan and of the United States, a revision of the CRL Agreement providing for the transformation of the CRL into an autonomous international agency. Realizing that some months would be required for the negotiation of the revised agreement, the Special Advisory Committee appointed by the Governor of East Pakistan in April 1961, to facilitate the development ofthe Cholera Research Laboratory, recommended, on May 29th, that the CRL operate, during the interim period, under the general agreement between the International Cooperation Administration of the United States and the Government of Pakistan. Both governments accepted this recommendation and an interim agreement, modifying that of October 14, 1960, was signed on July 28, and became operative late in August (ANNEX III). The Interim Agreement continued in operation until December 31, 1961. As had been foreseen, the negotiation of the Revised Agreement was slow,

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due to the fact that various agencies of each Government had to participate in the study of the Director's proposed Rivision. Each Government made modifications which had to be negotiated in due course. The Revised Agreement creating the Pakistan-SEATO Cholera Research Laboratory as an autonomous international agency was signed on December 30, 1961, (ANNEX IV). This agreement provides that the CRL operate under the immediate scientific direction of the National Institutes of Health and under the general direction of a Directing Council, composed of representatives of each of the participating SEATO nations, of the Secretary General of SEATO and of the Director of the National Institutes of Health.*

During the year 1961, preliminary arrangements were made for a research grant from the National Institutes of Health, through which the United States commitment to the financing of the CRL for Fiscal Years 1962 and 1963 might be guaranteed and additional provision made for expansion of scientific and field studies of the CRL.

On January 25, 1962, an agreement was signed by the Director of the National Institutes of Health and the Director of the CRL providing for a research grant applicable to operations during the Calendar Years 1962 and 1963, (ANNEX V).

Among the accomplishments of 1961, the negotiation with the Governments of Pakistan and of the United States of the Revised Agreement of December 30, 1961, creating an autonomous agency which can become multilateral and regional in its operation, stands at the top of the list.

Other highly significant developments were :

a.) The development and field demonstration of special culture media for the cholera vibrio, adapted to field diagnosis, and to the routine collection and forwarding for examination by post of diagnostic material from otherwise inaccessible outbreaks;

b.) The installation of a functioning water analysis laboratory with equipment and trained Pakistani technicians on loan from AID, and the initiation of studies of tank and tube well waters;

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* The prototype of this autonomous agency is to be found in the Institute of Nutrition of Central America and Panama (INCAP) with its headquarters in Guatemala City. In the case of (INCAP), the scientific and administrative direction is in the hands of the Pan-American Health Organization under the general government of a Directing Council composed of representatives of the six participating nations and of the Director of the Pan-American Sanitary Bureau. The original INCAP Agreement was written in 1946 and the Institute has been functioning very successfully in its chosen field of tropical nutrition since September of 1949

Contd. .....

c.) The receipt and beginning installation of considerable amounts of scientific equipment from the United Kingdom and from the United States, for clinical, biochemical, physiological and therapeutic research on cholera patients;

d.) The addition of two highly qualified research scientists to the staff of the CRL from the staff of the National Institutes of Health;

e.) Serving as host to a group of three persons from the scientific staff of the Naval Medical Research Unit of the United States at Taipeh, Taiwan, for some weeks during which studies were made on the effect of diarrhoeal diseases on the functioning of the so-called sodium pump in cases at the Mitford Hospital;

f.) Bacteriological and epidemiological observations of cases of cholera in and around Dacca during the post monsoon period.

Annexes to DC 1/1

I SEATO/USA AGREEMENT of May 29, 1959.

II Pakistan-SEATO Cholera Research Laboratory Agreement of October 14, 1960.

III Cholera Research Laboratory Interim Agreement of July 28, 1961.

IV Cholera Research Laboratory Revised Agreement of December 30, 1961.

V Research Grant Agreement between the National Institutes of Health and the Cholera Research Laboratory of January 25, 1962.

SEATO-USA AGREEMENT OF MAY 29 1959

SOUTH-EAST ASIA TREATY ORGANIZATION
Office of the Secretary-General

XIII(25)/59

Bangkok,

May 29, 1959

Excellency,

I have the honour to acknowledge the receipt of your Excellency's note (No. US/59/31), dated May 29, 1959,

"Excellency:

I have the honour to refer to the discussions concerning a cholera research programme which took place during the Fifth Annual Meeting of the Council of the South-East Asia Treaty Organization which met at Wallington, New Zealand, from April 8 to 10, 1959, and to propose the following understanding:

1. The Government of the United States of America, subject to applicable United States laws and regulations, will make available not to exceed $400,000 to finance a cholera research programme, to be carried out by the National Institutes of Health of the United States Department of Health, Education, and Welfare, through American, Asian and other appropriate institutions and bodies.

2. The Secretary-General of the South-East Asia Treaty Organization will seek to the maximum extent possible to enlist the support of members of the South-East Asia Treaty Organization in this cholera research programme, including the provision of personnel, together with necessary facilities, to work jointly with the National Institutes of Health. The support to be provided may be the subject of specific mutually agreed arrangements between the member nation and the National Institutes of Health or, as appropriate, the respective directors of the United States Operation Missions.

His Excellency
Mr. U. Alexis Johnson,
SEATO Council Representative for
the United States of America,
Bangkok, Thailand.

3. Once the laboratory is operating satisfactorily, activities under this project will be expanded to evaluate methods for control of cholera.

4. Except as herein modified, the general plans for cholera research in Pakistan will initially follow the recommendations of the Cholera Research Advisory Team of 1959.

B. CONTRIBUTIONS AND RESPONSIBILITIES OF ICA

1. Of the funds made available by the United States Government for the Cholera Research Program by the agreement of May 29, 1959, not to exceed $227,500 has been allocated to this project. A tentative budget is attached hereto as "Appendix A". To the extent that funds allocated to this project pursuant to this section and set out in "Appendix A" are made available from other sources, such funds may be rebudgeted for use elsewhere in this project or reallocated for use elsewhere in the overall program.

2. ICA will provide, through NIH, for:

   a. general scientific and administrative responsibility for and direction of project activities including field studies;

   b. the establishment of an International Committee on Cholera Research to provide project guidance and to evaluate progress of this project and of the program as a whole. This Committee will consist of one member to be nominated by each of the SEATO countries cooperating in the program, one member from each of the principal cooperating laboratories, the Secretary General of SEATO or his representative, and one member designated by NIH who will act as initial chairman. The director of the laboratory shall be a member ex-officio. Additional members and observers may be added as agreed to by the committee. It is contemplated that the committee will meet at least once each year at a time and place selected by the chairman. The costs of international travel of committee members may be paid from funds allocated to this project pursuant to Section B. 1, of this Agreement;

   c. the appointment of a special advisory committee to the Director of NIH to give advice on the implementation of the project;

American Embassy
Karachi,Pakistan

October 14, 1960.

Mr. Zahirud-din Ahmad,
Joint-Secretary,
Ministry of Finance,
Economic Affairs Division,
Government of Pakistan,
Karachi.

Dear Mr. Zahirud-din,

Pursuant to the agreement of May 29, 1959, between the Secretary General of the South East Asia Treaty Organization and the SEATO Council Representative for the United States of America, establishing a cooperative cholera research program, I propose as provided in paragraph 2 of that agreement, the following arrangements for a project to be carried out in Pakistan as part of the overall cholera research program:

A. GENERAL

1. First priority is the establishment of a bacteriology laboratory. The foci of cholera in Pakistan being in East Pakistan, the most suitable site for conducting research is at the Institute of Public Health, Mahakali, Dacca. The Institute building possesses ample space to house a research laboratory. The target date for commencing operation of the laboratory will be October, 1960.

2. The laboratory will be known as the Pakistan SEATO Cholera Research Laboratory (hereinafter "the laboratory"). As hereinafter specified, it will be jointly equipped, operated and financially supported by the Government of Pakistan (hereinafter "GOP"), the National Institutes of Health of the United States Department of Health, Education and Welfare (hereinafter "NIH") and the International Cooperation Administration (hereinafter "ICA") an agency of the Government of the United States, and such other of the member nations of the South East Asia Treaty Organization as may hereafter associate themselves with this project.

I have the honour to propose that, if these understandings are acceptable to the South-East Asia Treaty Organization, this note and your Excellency's note in reply concurring therein shall constitute an agreement between the Government of the United States of America and the South-East Asia Treaty Organization, which shall enter into force on the date of your Excellency's reply.

Accept, Excellency, the renewed assurances of my highest consideration."

2. On behalf of the South-East Asia Treaty Organization, I concur in the understandings set forth in Your Excellency's note.

3. Further, I am desired to state that:-

(a) the Government of Pakistan has re-affirmed that all facilities in Dacca Medical College and the Public Health Laboratories in East Pakistan and the personnel employed there, required in connexion with the SEATO Cholera Project, will be placed at the disposal of the United States National Institutes of Health for the purpose of the Project, and I have been assured that the Government of Pakistan will extend full co-operation and facilities for the Cholera Research Project;

(b) the Government of Thailand will endeavour to find suitable personnel to participate in this Project and would be glad to render facilities in case there are works or studies to be carried out in Thailand.

4. I confirm that Your Excellency's note and this note in reply concurring therein shall constitute an agreement between the Government of the United States of America and the South-East Asia Treaty Organization, which shall enter into force this day.

5. May I avail myself of this opportunity to renew to Your Excellency the assurance of my highest consideration.

(Pote Sarasin)
Secretary-General

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY AGREEMENT
OF
OCTOBER THE 14TH 1960

d. the recruitment and assignment to the laboratory of a senior research microbiologist and an epidemiologist, one of whom will be designated Director of the Laboratory. The expenses for salary and international travel of these two scientists may be paid from funds allocated to this project pursuant to Section B. 1, of this agreement. In addition, two short-term non-scientific assistants will be recruited and assigned to the laboratory to assist in receiving, transporting within Pakistan and installing the equipment and supplies to be furnished pursuant to Section B. 2, f, of this agreement. The international travel of such personnel may be paid from funds allocated to this project pursuant to Section B. 1, of this agreement. Further personnel may be recruited and assigned to this project as the parties may hereafter agree;

e. design and layout of the laboratory;

f. the procurement and delivery to the laboratory, with funds allocated to this project pursuant to Section B. 1, of this agreement, of minimum essential equipment and supplies to commence operation of the laboratory, including necessary air conditioners. After the laboratory is in operation, procurement and delivery of further scientific equipment requirements and necessary imported research supplies, as determined by the staff, and within budgetary limitations, will be provided with funds allocated to this project pursuant to Section B. 1, of this agreement. Title to all equipment provided pursuant to this Section will be in NIH until termination of this agreement as hereinafter provided at which time title to such equipment will vest in the GOP for use in carrying out the continuing operation contemplated by this agreement;

g. furnishing to the Director of the laboratory of up to three vehicles, two jeep station wagons or equivalent and a truck equipped and suitable for carrying personnel and field equipment. Title to such vehicles will be in NIH until termination of this agreement as hereinafter provided at which time title to such vehicles will vest in the GOP for use in carrying out the continuing operation contemplated by this agreement; and

h. assignment to the project, for periods of consultation, of such specialists, experts or consultants as shall be deemed necessary by the Director of the laboratory.

3. ICA, through the United States Operations Mission to Pakistan, will provide:

a. necessary operational and policy guidance and administrative support to the project. Such support will include the provision of living accommodations and other support as for regular ICA employees for up to three permanent staff members and dependents, the NIH administrative officer and engineer, and such other U.S. or non-Pakistani personnel as may be mutually agreed upon on an individual basis by USOM/PAKISTAN and GOP, and gasoline, oil and maintenance for the vehicles to be furnished to the Director of the laboratory pursuant of Section B. 2, g, hereof, and such further necessary expenditures as may hereafter be agreed upon by the parties hereto, provided however, that expenses incurred pursuant to this Section shall be limited to those payable in Pakistan rupees, and provided further that such expenditures may be paid from and will be subject to availabilities of funds contained in the Trust Account established on June 1, 1956, by an exchange of letters between the Director, United States Operations Mission to Pakistan and the Secretary of the Ministry of Economic Affairs of the GOP;

b. to the maximum extent, coordination of the program of the Health and Sanitation Division, USOM/Pakistan, with the project, including participation in the project by the "Provincial Public Health Advisor" of USOM/P located in Dacca, East Pakistan. He will be a member of the Advisory Committee to be established and chaired by the Director of Health Services, Government of East Pakistan as described below, Section C. 1, j;

c. payment from Fiscal Year 1960 Pakistan program funds, for a six-month training grant for the Pakistani scientist to be assigned (pursuant to Section C. 1, d, of this agreement) as research bacteriologist to the laboratory. This grant will be used to provide for study in the United States research laboratories cooperating in the program.

4. The obligations of ICA under this agreement shall be carried out pursuant to the applicable laws and regulations of the United States.

C. CONTRIBUTIONS AND RESPONSIBILITIES OF THE GOVERNMENT OF PAKISTAN

1. The GOP will provide for:

a. the availability of approximately 10,000 square feet of space in a suitable location to be agreed upon in the Institute of Public Health Building, Dacca;

b. the procurement of labor and locally available materials for any necessary remodelling of the space referred to in Section C. 1, a, above. It will provide for the procurement and installation, ready for use, of all necessary nonscientific equipment including benches, cabinets, adequate electrical wiring and plumbing, and for the installation of the equipment to be provided by ICA through NIH pursuant to Section B. 2, f, of this agreement;

c. the payment of all local, recurring operating costs of the laboratory, including utilities, miscellaneous repairs, animal feed and bedding, raw material for bacteriological media, stationery and postage;

d. the recruitment, funding, support and availability for duty at the laboratory as soon as possible of the following personnel: One trained bacteriologist (doctorate level) who will be in charge of the bacteriology section of the laboratory; three young scientists with M.B.B.S. or M.Sc. or equivalent training; four technicians to serve as laboratory assistants; two workers to handle glassware and media preparation; two animal caretakers; two sweepers; up to three drivers for the vehicles to be furnished to the Director of the laboratory pursuant to Section B. 2, g, of this agreement; one stenographer; 1 accountant; two clerks. Should subsequent project developments so require, the GOP will provide for the recruitment, funding, support and assignment to the laboratory for a period of service of not less than two years, of up to two additional young physicians;

e. the operation, including full medical and financial responsibility, of a small (approximately 20-bed) cholera and dysentery ward in the Institute of Public Health Building. The GOP will provide for access to patients in such ward by the staff of the laboratory for purposes of (1) participation in their clinical management, (2) observation of their diseases, (3) obtaining specimens for research study and (4) any other proper purpose essential to the research program;

f. the availability of a small apartment, convenient to the ward provided for in Section C. 1, e, above, equipped for temporary accommodation (including overnight stays) of project staff who must remain on duty in connection with patient care or research activities;

g. the availability in the Animal House on the Institute's grounds of ample space for such animals as are considered essential to the needs of the project. This will be in addition to the limited space (largely for rabbits and mice) which will be an integral part of the laboratory;

h. the establishment and funding of a separate rupee contingency fund which may be drawn upon by the Director of the Laboratory, at his sole discretion, in amounts not to exceed Rs. 5,000 per month, to meet costs of project activities outside the normal recurring operating expenses of the Laboratory. Such activities may include, but need not be limited to, the testing of cholera vaccines in the field, epidemic intelligence service, field trips, collection of specimens and, in particular instances where the parties hereto deem it desirable, the payment of travel allowances to the Pakistani staff. The Director of the Laboratory will render monthly to such person as shall be designated by the GOP, a detailed account of expenditures from such fund, and in addition, records of such expenditures shall be available to the GOP for post-audit purposes at all reasonable times;

i. the availability of an amount not to exceed Rs.220,000 for the cost of necessary remodelling of the rooms at the Institute of Public Health to be used for the Pakistan/SEATO Cholera Research Laboratory, and for the cost of installing the laboratory equipment, of which not less than Rs. 100,000 will be made available immediately and the balance during FY 60-61. The availability of the annual recurring expenditures to operate the Pakistan/SEATO Cholera Research Laboratory, the annual amount not to be less than Rs. 150,000. All proposals for expenditures of these funds shall be submitted for the concurrence of the Financial Advisor to the Government of East Pakistan, Development Department, who will act as Finance Officer for this project. Records of expenditures made from these funds shall be available to the GOP for purposes of post audit at all reasonable times;

j. the establishment of an Advisory Committee in Dacca, chaired by the Director of Health Services, Government of East Pakistan to advise the Director of the Pakistan/SEATO Cholera Research Laboratory in operational and administrative problems. The Committee will meet quarterly or more frequently at the discretion of the Chairman.

2. To the extent feasible, public health programs of the GOP relating to cholera will be coordinated with the project.

3. a. If ICA or any public or private organization furnishing commodities for operations hereunder through financing provided by ICA under this agreement is, under the laws, regulations or administrative procedures of the GOP or any political sub-division thereof, liable for customs duties and import taxes on commodities imported into Pakistan for purposes of carrying out this agreement, the GOP will pay such duties and taxes unless exemption is otherwise provided by an applicable international agreement.

b. If any personnel (other than citizens and residents of the cooperating country), whether United States Government employees or employees of public or private organizations under contract with, or individuals under contract with an agency of the United States Government or an agency of the GOP, who are present in Pakistan to provide services which ICA has agreed to provide or furnish or finance under this agreement, are, under the laws, regulations or administrative procedures of the GOP or any political subdivision thereof, liable for income and social security taxes with respect to income upon which they are obligated to pay income or social security taxes to the Government of the United States of America, for property taxes on personal property intended for their own use, or for the payment of any tariff or duty upon personal or household goods brought into Pakistan for the personal use of themselves and members of their families (not including such personal or household goods as may be sold by any such personnel in the cooperating country), the GOP will pay such taxes, tariff, or duty unless exemption is otherwise provided by any applicable international agreement.

D. PARTICIPATION OF THIRD PARTIES

1. The Governments of Pakistan and the United States welcome the participation of other SEATO members in the project.

2. Scientific personnel and additional funds can be utilized over and above those already specified in this agreement.

3. The terms and types of contributions from other SEATO members will be agreed upon by Pakistan and the contributing country in consultation with the appropriate authorities of the U.S. Government.

4. As it is recognized that cholera is still prevalent in other countries of Asia beside the SEATO members, collaboration and cooperation with scientists from such countries on common cholera research problems will be encouraged by the parties hereto.

E. DURATION AND AMENDMENTS

This agreement may be modified, altered or amended by mutual agreement of the parties, in writing, at any time. Unless otherwise agreed, it will terminate on June 30, 1963, at which time complete responsibility for operation of the laboratory will be turned over to the GOP.

I also propose that, if those understandings are acceptable to the Government of Pakistan, this letter and your letter in reply concurring herein shall constitute an agreement between the Government of Pakistan and ICA, which shall enter into force on the date of your reply.

Please accept the renewed assurances of my highest consideration.

Sincerely yours,

James S. Killen
Director, USOM/P

Attachment

Appendix A

ANNEX TO PLAN FOR PAKISTAN PORTION OF SEATO CHOLERA RESEARCH PROJECT

Illustrative NIH Budget for SEATO Cholera Research Activities in Pakistan

A.	Costs Specifically Relating to Pakistan Phase:	
1.	Initial basic equipment and supplies	100,000
2.	Additional supplies, equipment, personnel costs, and operating budgets	110,000
3.	Per diem	7,500
4.	Consultation travel of senior personnel from Dacca to the U.S. and return	10,000
B.	General Expenses 1/ :	
1.	Special consultants, 15 trips each, 30-45 days	27,000
2.	Cholera conferences and training	50,000
3.	Per diem for (1) at $14 per day per person for 80 days	15,000
4.	Other general expenses	52,500

1/ Represents costs which it is not feasible to break down between Pakistan and other phases of project; however, since principal project activities and laboratory will be at Dacca, a greater part of expenditure will benefit Pakistan phase of project.

GOVERNMENT OF PAKISTAN
MINISTRY OF FINANCE
ECONOMIC AFFAIRS DIVISION
KARACHI

October 14, 1960.

Dear Mr. Killen,

This is to communicate to you my Government's concurrence in the proposals contained in your letter dated the 14th October, 1960, to my address, concerning the establishment of a Cholera Research Institute in East Pakistan, as part of the Cholera Research Programme of SEATO, and to confirm that your letter dated the 14th October, 1960 and this letter, in reply thereto, will constitute an agreement between the Government of Pakistan and the United States Operations Mission to Pakistan effective from today the 14th October, 1960.

Yours sincerely,

/s/ Zahiruddin Ahmed

(Zahiruddin Ahmed)
Joint Secretary

To

Mr. James S. Killen,
Director,
United States Operations Mission to Pakistan,
USOM Building,
Karachi

CHOLERA RESEARCH LABORATORY INTERIM AGREEMENT OF JULY 28, 1961

INTERNATIONAL COOPERATION ADMINISTRATION
UNITED STATES OPERATIONS MISSION TO PAKISTAN

American Embassy
Karachi, Pakistan

June 26, 1961.

Mr. M.A. Mozaffar
Joint Secretary
Ministry of Finance
Economic Affairs Division
Government of Pakistan
Karachi.

Dear Mr. Mozaffar:

My letter of October 14, 1960 to the then Joint Secretary of the Ministry of Finance of the Government of Pakistan and his reply thereto comprise an agreement between our two countries with reference to the establishment and operation of a cooperative cholera research program in East Pakistan. As you know, a broad scale revision of that agreement has been proposed by Dr. Fred L. Soper, Director of the Laboratory. Pending execution of that revision it is proposed that the present agreement be amended to provide for the hiring of personnel and for meeting certain operating expenses in the interim as follows:

Amend paragraph 3 of Article B by relettering existing sub-paragraphs b and c as "c" and "d" respectively inserting the following new sub-paragraph b and deleting sub-paragraphs c, d and e under paragraph 1 of Article C:

"b. the recruitment, support, and funding of necessary personnel for duty on the cholera research project in addition to those currently employed and the payment of operating costs of the project as deemed necessary by the Director of the Laboratory after consultation with the Provincial authorities concerned. Expenditures for these items shall be made from funds contained in the Trust Account as set out in sub-paragraph a. above".

I further propose that, if this amendment is acceptable to the Government of Pakistan, this letter and your concurrence therein as evidenced by your signing and returning the copy enclosed for your convenience, shall constitute an amendment to the agreement of October 14, 1960, which shall enter into force on the date of your concurrence.

Very truly yours,
/s/ James S. Killen
James S. Killen
Director

Concurred: /s/ M.A. Mozaffar
Dated : 28/7/61

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY
REVISED AGREEMENT
OF
DECEMBER 30 1961

INTERNATIONAL COOPERATION ADMINISTRATION

UNITED STATES OPERATIONS MISSION TO PAKISTAN

American Embassy
Karachi

December 30, 1961

Mr. M. A. Mozaffar
Joint Secretary
Ministry of Finance
Economic Affairs Division
Government of Pakistan
Karachi

Dear Mr. Mozaffar:

Through an agreement evidenced by letters exchanged on October 14, 1960 between the Director of the United States Operations Mission and the Joint Secretary of the Ministry of Finance and amended on July 28, 1961, the Pakistan-SEATO Cholera Research Laboratory was established. In accord with Articles E of the Agreement, I propose that the Agreement as amended be altered in its entirety to read as follows:

> The Pakistan-SEATO Cholera Research Laboratory (hereinafter CRL), established at Dacca, East Pakistan, is hereby made an autonomous agency supported by the Government of Pakistan and the Government of the United States of America through the Agency for International Development (hereinafter AID) and the National Institutes of Health (hereinafter NIH) of the U. S. Department of Health, Education, and Welfare (hereinafter DHEW) and by the Governments of such other SEATO nations as may desire to participate operating under the immediate scientific direction of the NIH and under the general direction of a Directing Council.
>
> The modern approach to the prevention of communicable diseases in this age of jet transportation must be through eradication of the permanent seed beds of infection. The great historic seed bed of cholera includes parts of East Pakistan. The broad objective of the CRL is the development, evaluation and demonstration of measures of prevention and eventual eradication of cholera.

A. GENERAL

1. The CRL is established at the Institute of Public Health, Mahakhali, Dacca, East Pakistan. The Bacteriology Section has been operative for some months; additional Sections of Epidemiology, Physiological Chemistry, Water Analysis, Clinical Observation and Field Demonstrations are being developed.

2. The activities of the CRL necessarily cover all phases of cholera investigations and prevention. Attaining the immediate objective, i.e., the elucidation of the epidemiology of cholera in East Pakistan with the identification of those factors which permit cholera to remain endemic, decade after decade, depends on the improvement and standardization of bacteriological and immunological methods. As the epidemiological studies proceed, the effects of various means for preventing cholera will be studied. Among these are the effects (1) of intensive vaccination of selected population groups with different types of vaccine and (2) of the provision of potable water to discourage the drinking of tank and ditch waters. Studies will be made of the abnormal physiology of cholera cases in a search for a better system of treatment.

3. The CRL is to be capable of serving as the base for regional anti-cholera operations; it is intended that the studies and observations in East Pakistan will be supplemented by research based on both laboratory and field word in other cholera-infected countries. The CRL is a center where visiting scientists and public health officials with special interests in and knowledge of cholera may come for firsthand contact with the problem. It is also a place where scientists and health administrators from other countries may be trained in methods for the study and prevention of cholera.

4. The activities of the CRL in East Pakistan will be coordinated to the maximum extent possible with the programs of the Health Services and of Public Health Engineering of the GOEP; in West Pakistan similar coordination with the Provincial authorities will occur should occasion arise for studies there; full advantage will be taken also of the opportunity for collaboration with projects sponsored by the Public Health Division of the AID Mission to Pakistan.

(more)

5. The terminal date for the operation of the CRL cannot be foreseen but certainly a number of years will be required for the solution of the cholera problem.

B. COMPOSITION AND FUNCTIONS OF THE DIRECTING COUNCIL

1. The Directing Council of the CRL will consist of one member representing each of the nations participating in the CRL, the Secretary-General of SEATO or his representative, and the Director of NIH or his representative. The Director of the CRL shall be a non-voting member ex-officio and serve as Secretary of the Council.

The Directing Council will meet at least once a year to consider the Director's scientific, administrative and financial reports; to approve the general program; to review the auditors' reports; and to approve, with the approval of the participating nations, the level of the general operating fund of the CRL for the succeeding year.

C. DIRECTION OF THE PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

The NIH has responsibility for the immediate scientific direction of the activities of the CRL, including field studies, under the general direction of the Directing Council.

1. The NIH is responsible for the selection and assignment of a properly qualified scientist to act as Director of the CRL.

2. As authorized in this Agreement or as additionally authorized by the Directing Council, the Director may on behalf of the CRL receive and disburse all funds which are owned by or come under the control of CRL; acquire and take title to all forms and types of moveable property, including equipment, supplies, and motor vehicles; appoint and remove personnel; determine salaries and allowances; negotiate, enter into, and execute contracts, leases, purchase orders, and requisitions; and do all other things necessary to fulfilling his responsibilities for the scientific and administrative functions of the Cholera programs.

(more)

3. A CRL Technical Committee, preferably not more than three to five persons, including at least one member from Pakistan, shall be appointed by the Director of the NIH. This Committee shall visit the CRL at intervals for sufficient periods of time to become familiar with the development and progress of both laboratory and field projects. The CRL Technical Committee shall be responsible for the preparation of a detailed commentary and appraisal of the CRL program which shall be taken into consideration in preparing the annual report and in drafting recommendations to the Directing Council for the ensuing budgetary period.

D. FINANCING OF PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY ACTIVITIES

1. The laboratory, hospital, and field activities of the CRL are financed from:

a. The SEATO/NIH Cholera Research Fund, established by the Agreement of May 29, 1959, between SEATO and the Government of the U.S.A.; this Fund will be reserved insofar as possible for the purchase of supplies and equipment to be imported and for the payment of such commitments of the program as cannot be paid in local currencies.

b. The CRL General Operating Fund created by pooled funds from the participating nations at the beginning of the fiscal year. Contributions to the General Operating Fund by the GOP and the AID and the NIH may be made from any funds available to them. The General Operating Fund may be used for all types of necessary expenditures of the CRL for its laboratory, hospital, and field studies, including the purchase in the open market of locally available supplies. This fund will support the basic operations of the CRL and a portion of the research it undertakes. The Fund is not designed to be adequate to support the total research effort of the CRL. The sources of additional funds are given in sub-paragraphs c., d., and e. below.

(more)

c. Additional funds in various currencies, including rupees available from the U.S.A. Public Law 480, Section 104(k) funds in accord with Agreement of November 26, 1958, or subsequent agreements under P.L. 480, between GOP and the Government of the U.S.A., may be contributed through the NIH for expanding the scope of cholera investigations; such funds are to be used for supplementing the program financed by the General Operating Fund, especially in the development of clinical studies, epidemiological investigations, and field trials of cholera prevention methods and for the support of international aspects of the work of the CRL.

d. Such additional funds, personnel, or contributions in kind as may be contributed by interested nations, by international agencies and by private foundations, for general or specific use in the study and prevention of cholera.

e. The CRL Capital Reserve Fund created from such unspent or uncommitted monies as remain to the credit of the GOP in the General Operating Fund at the end of each fiscal year; such additional unspent or uncommitted monies in the General Operating Fund at the end of each fiscal year as are approved for transfer to the Capital Reserve Fund by the Directing Council with the consent of, and in accord with, the laws, rules and regulations of the contributing nation, public or private organizations; and such other funds as may be contributed by interested SEATO member nations, international agencies or private foundations, to develop facilities for the Cholera Research Laboratory and its units. Any balance remaining in the CRL Capital Reserve Fund at the end of a fiscal year will be carried to the next consecutive fiscal year. The Capital Reserve Fund may be used by the Director, CRL, to finance any construction, remodelling and installation, or modification of utilities deemed necessary by the Director, CRL, and mutually agreed to by authorities of the GOP to facilitate the Cholera Research Program at any time or place.

(more)

The annual financial report of the Director, CRL, will cover (1) the status of the General Operating Fund as a whole and (2) the status of individual funds acquired under c., d., and e. above in sufficient detail for the contributing nations or agency to identify the application of its contribution.

2. All funds, excepting those of the CRL General Operating Fund to which the GOP contributes directly and such funds as may be made available specifically for designated research projects, may be used in developing the international phases of the cholera research program.

3. The AID will participate in the giving of operational and administrative support and guidance to the NIH in the direction of the CRL. The character and amount of the participation of the AID may vary from time to time depending on direct negotiations between the NIH and AID; the support of the AID to the CRL shall include the provision of living accommodations and other support as for regular AID employees to the CRL's United States personnel, and gasoline, oil and maintenance for the vehicles of the CRL. The GOP agrees that expenses incurred pursuant to this paragraph shall be limited to rupees paid from and subject to availability of funds contained in the Trust Account established on June 1, 1956 by an exchange of letters between the Director, United States Operations Mission to Pakistan, and the Secretary of the Ministry of Economic Affairs of the GOP.

E. CURRENT FINANCIAL PROVISIONS

Unless the participating nations through direct negotiation or through action of the Directing Council determine otherwise, the following provisions will apply:

1. The residue of funds made available by the United States Government in the SEATO/U.S.A. Cholera Research Agreement of May 29, 1959 will continue to be available for the support of this current revision in accordance with D. 1.a. of this document.

2. For the fiscal years 1962 and 1963 the CRL General Operating Fund shall consist of not less than Rs. 420,000.00 for each fiscal year from:

(more)

a. contribution from GOP and USA of Rs. 210,000.00 each in each fiscal year. The USA contribution will be from PL 480, Section 104(k) funds.

b. contributions from other SEATO nations which desire to participate in the CRL.

3. The initial contributions to the CRL Capital Reserve Fund shall come from:

a. The GOP in the amount of Rs. 96,000. This may come from the unspent balance of Rs. 105,000 for the first half of fiscal year 1961-62, in which case the total financial responsibility of the GOP for fiscal year 1961-62 will not exceed Rs. 210,000 as specified in Article E, paragraph 2a of this Agreement.

b. The AID in an amount equal to that contributed to the CRL Capital Reserve Fund by the GOP in fiscal year 1961-62. This contribution may come from any rupee funds available to AID for the purpose of capital expenditures in Pakistan.

Any subsequent contributions to the CRL Capital Reserve Fund will be made in accord with Article D, paragraph 1, sub-paragraph e of this Agreement.

4. It is agreed that financing through Trust Account shall continue until December 31, 1961 on the same terms and conditions set out in paragraph 3 of Article B of the ICA-GOP Agreement of October 14, 1960, as amended on July 28, 1961.

F. STAFFING OF THE PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

The staff of the CRL will be international in character and variable in number and in qualifications according to the character of investigations and field demonstrations being carried out at any one time. The general plan of staffing is as follows:

1. In addition to the Director appointed in accord with Article C, paragraph I, there is a Deputy Director who may be assigned by the Director to carry out any of his duties and responsibilities as occasion may demand.

(more)

2. The professional scientific staff may be chosen from Pakistani scientists, or may be assigned by the NIH, for such periods as the Director may request, or may be recruited from other countries.

3. Visiting scientists from other SEATO countries may be invited or accepted by the Director for special studies along the line of their competency. (Should it be advantageous to utilize the services of non-SEATO country nationals, the acceptability of the individuals concerned to the GOP will be ascertained before making arrangements for their participation in the activities of the CRL.)

4. Personnel employed by the GOP who are seconded to the CRL will be protected in all rights of seniority and promotion in Government Service during their years with the CRL.

5. The salaries of personnel of the CRL will be adjusted to the necessaity of having the full-time services of the best available staff for research, for field investigation and for administrative support. Exclusive dedication during a forty (40) hour week with willingness to work wherever needed in Pakistan, will be required. Long tenure is essential because of the highly specialized nature of the work; provision must be made to reclassify and promote those individuals who profit from in-service training and develop skills beyond those possessed at entry to the Service. Pay scales for non-Governmental contract employees of the CRL should be comparable to those for the same personnel in commerce, in the AID Mission in Pakistan and in other autonomous services, whereas those in Government Service seconded to the CRL should receive a bonus for such assignment.

G. SPECIAL RESPONSIBILITIES OF THE HOST GOVERNMENT

The GOP will provide, in addition to their contribution in Article E above:

1. The space presently allotted to the CRL in the Institute of Public Health and such space in other Government buildings in Dacca and elsewhere as may be necessary and agreed to by GOEP ; maintenance and repairs service at Government expense to the space thus occupied by the CRL; and payment for the operating cost of the utilities installed therein.

(more)

2. For completing the installation of a small, approximately 20 bed, cholera and dysentery ward in the Institute of Public Health Building and will second, insofar as possible, the medical and nursing staff for this ward. Salaries of such personnel will be paid by the CRL from the General Operating Fund and may be adjusted by the Director, CRL, to a level comparable to that received by non-Government employees of the CRL who have similar qualifications and duties. (The selection of such Government personnel to be seconded will be made by the Director of the Health Services and the Director of the CRL.) The GOP will provide for access of patients to such ward to permit the staff of the CRL to (1) participate in clinical management, (2) observe the course of the disease, (3) obtain specimens for research study, and (4) carry out proper procedures essential to the Research Program.

3. For the availability of a small apartment convenient to the ward equipped for temporary occupation, including overnight stays, of project staff who must remain on duty in connection with patient care for research activities.

4. For a Coordinating Committee to advise the Director of the CRL in the coordination of cholera research activities with those of agencies of the Provincial Government, especially in connection with field studies and with evaluation of the results of preventive measures. The Committee will meet at the discretion of the Chairman or on the request of the Director.

5. If the CRL, the NIH, the AID, any nation contributing to the CRL, or any public or private organization furnishing commodities or operations hereunder, is, under the laws, regulations or administrative procedures of the GOP or any political subdivision thereof, liable for customs duties or import taxes on this Agreement, the GOP will pay such duties and taxes unless exemption is otherwise provided for by an applicable international Agreement.

6. If any personnel (other than citizens and residents of the cooperating country), whether United States Government employees or employees of public or private organizations under contract with, or individuals under contract with an agency of the United States Government or an agency of the GOP, who are present in Pakistan to provide services which the NIH or the AID has agreed to provide or furnish or finance under this Agreement, are, under the laws, regulations or administrative procedures of the GOP or

(more)

any political subdivision thereof, liable for income and social security taxes with respect to income upon which they are obligated to pay income or social security taxes to the Government of the U.S.A., for property taxes on personal property intended for their own use, or for the payment of any tariff or duty upon personal or household goods (including one automobile) brought into Pakistan for the personal use of themselves and members of their families (not including such personal or household goods as may be sold by any such personnel in the cooperating country), the GOP will pay such taxes, tariff, or duty unless exemption is otherwise provided by any applicable international agreement.

7. The GOP shall assume full responsibility in respect of any claim against AID, NIH, DHEW or CRL, their non-Pakistani employees and agents, arising in Pakistan in connection with any assistance which has been provided by SEATO, AID, NIH, DHEW or CRL in connection with the activities under this Agreement. GOP shall defend at its own cost SEATO, AID, NIH, DHEW and CRL, their non-Pakistani employees and agents, with respect to any such claim. If GOP makes any payment under the terms of this provision, GOP shall be entitled to exercise all the rights, claims and the interest which SEATO, AID, NIH, DHEW and CRL could have exercised against third parties. This provision shall not apply with respect to any claim for loss, damage or injury against SEATO, AID, NIH, DHEW or CRL by a staff member of SEATO, AID, NIH, DHEW or CRL.

H. OBLIGATIONS OF UNITED STATES AGENCIES

The obligations of the NIH and those of the AID shall be carried out pursuant to the applicable laws and regulations of the United States.

I. PARTICIPATION OF OTHER NATIONS AND OF PRIVATE AGENCIES

The GOP and the U.S.A. welcome and encourage other SEATO nations to join as participants in the CRL. The participation of other SEATO nations in the CRL would be the subject of consultation within the SEATO Council representatives. It is anticipated that the Director of the CRL with the concurrence of the Directing Council would also consult with appropriate officials of individual SEATO nations concerning the nature and extent of their participation.

(more)

There is no SEATO cholera problem distinct from the cholera problem of the non-SEATO nations of the region and the final solution to the cholera problem must come through a consolidated regional effort. Every effort is to be made to interest all cholera-infected nations and all countries threatened with cholera, and the corresponding Regional Offices of the World Health Organization, in the solution of the cholera problem.

Free interchange of information and direct collaboration wherever possible will be arranged with investigators and health authorities of nations and with the World Health Organization and with its Regional Offices.

Private agencies will be encouraged to support special cholera research and prevention study projects administered by the CRL.

J. PERIOD OF REVISED AGREEMENT: EXTENSION

1. This Agreement will become effective when signed by representatives of the GOP and the AID, but the participation of additional SEATO countries in the CRL will be sought.

2. The present Agreement may be modified, altered or amended by mutual agreement of the parties in writing at any time. Unless otherwise agreed, subject to the availability of funds, it will continue through June 30, 1964; consideration of extending the present Agreement beyond June, 1964 will begin not later than June, 1963 based on recommendations of the Directing Council. This Agreement may be terminated by mutual consent of the parties; participation of any one party to the Agreement may be withdrawn upon twelve months' written notice to all other parties to the Agreement.

3. Upon termination of the activities of the CRL, the equipment, supplies and vehicles referred to in Article B, subparagraphs 2.f. and 2.g., of the Agreement of October 14, 1960 between the GOP and the AID Mission in Pakistan will be transferred to and become the property of the GOP; similarly, additional equipment, supplies and vehicles which are titled in CRL will, upon termination of the activities of the CRL, be transferred to and become the property of the GOP. The disposal of such equipment and supplies as the CRL may have received on a loan basis, will be negotiated with the Government or agency in which title thereto rests.

(more)

K. INITIAL MEETING OF THE DIRECTING COUNCIL

It is proposed that an initial meeting of the Directing Council be called at Dacca at the earliest convenient date after this agreement enters into force, by the Director of the CRL in consultation with the Secretary-General of SEATO. The necessary travel expenses of this meeting may be paid from the SEATO/NIH Cholera Research Fund or from other funds available to the CRL.

I further propose that, if the foregoing is acceptable to the Government of Pakistan, this letter and your concurrence therein as evidenced by your signing and returning the copy enclosed for your convenience, shall constitute an alteration to the Agreement of October 14, 1960, as amended, which shall enter into force on the date of your concurrence.

Very truly yours,

Sd/ Frederick H. Bunting

Frederick H. Bunting
Acting Director

Concurred: Sd/ M. A. Mozaffar

Date : 30th December, 1961

RESEARCH GRANT AGREEMENT
BETWEEN THE
NATIONAL INSTITUTES OF HEALTH AND THE CHOLERA RESEARCH LABORATORY OF JANUARY THE 25TH 1962

United States Government
Department of Health, Education, and Welfare
Public Health Servic -- National Institutes of Health

An Agreement Providing for the Conduct of Research
Under Section 104 (k) of Public Law 480, 83rd Congress

Agreement No. 196802.

Parties to the Agreement:

1. The National Institutes of Health, Bethesda 14, Md., U.S.A.

2. Pakistan-SEATO Cholera Research Laboratory, Dacca, East Pakistan

Purpose or Descriptive Title of Work to be Carried Out:

To develop, improve, and demonstrate measures for the prevention and eventual eradication of cholera.

Effective Period of the Agreement: January 1, 1962 to December 31, 1963.

Funds to be Provided during Period of Agreement: 1,700,000 Pakistan rupees

National Institutes of Health

Project Officer: Joseph E. Smadel, M.D.

Laboratory & Institute: Lab. of Virology and Rickettsiology, Division of Biologics Standards

Collaborating Institution

Pakistan-SEATO Cholera Research Laboratory
(Name of Institution)

Dacca, East Pakistan
(Address)

Dr. Fred L. Soper
(Name of Principal Investigator)

Title: Director, Pakistan-SEATO Cholera Research Laboratory

Authorizing NIH Official: James A. Shannon, M.D.
Director, NIH.

Address where work will be performed:
Pakistan-SEATO Cholera Research Laboratory
Dacca, East Pakistan

Payee or Financial Officer: Director, CRL

Authorizing Official: Dr. Fred L. Soper, Director
Pakistan-SEATO Cholera
Research Laboratory.

Validating Signatures will appear at the end of the Agreement.

Agreement No. 196802

United States Government
Department of Health, Education, and Welfare
Public Health Service -- National Institutes of Health

An Agreement Providing for the Conduct of Research
Under Section 104(k) of Public Law 480, 83d Congress

This Research Agreement is entered into between the National Institutes of Health of the Public Health Service, Department of Health, Education, and Welfare, United States of America, hereinafter referred to as "the NIH," and the Pakistan-SEATO Cholera Research Laboratory, Dacca, East Pakistan, hereinafter referred to as "the Cholera Research Laboratory", or "CRL."

This Research Agreement consists of Sections I through XI, a budget table, a signature page, and a cover sheet. It is authorized and executed under the respective authorities granted to the NIH and the Cholera Research Laboratory.

The parties to the Research Agreement mutually agree as follows:

Section I

General Understanding

1. It is the intent of the parties to this Agreement to provide for the conduct of the research and related activities set forth in Section II below as being of mutual interest to both parties in the advancement of their respective scientific and health objectives.

2. The NIH agrees to make payment in local currency to an amount not to exceed 1,700,000 Pakistan rupees for the performance of this research by the Cholera Research Laboratory to be paid as provided for hereinafter. The Cholera Research Laboratory agrees to carry out the research activities set forth in Section II in accordance with the terms and conditions hereinafter specified, and to accept payment in local currency in the amount specified.

Section II

Objectives and Description of Work to be performed

1. Objectives: To develop, improve, and demonstrate measures for the prevention and eventual eradication of cholera.

2. Description of Research Plan: The epidemiology of cholera in East Pakistan, a highly endemic area for this disease, will be investigated intensively, and will be studied elsewhere as opportunities occur. The ecology of the cholera vibrio, insofar as it may exist in water or other media apart from the human host, will be studied. Means for preventing and controlling cholera will be tested; these will include studies on intensive vaccination in selected areas and observations on the effect of the provision of potable water by the health authorities in other areas. Clinical studies directed toward a better understanding of the host-parasite relationship in acute cholera will be undertaken and, based on information obtained there, improved methods of prevention and treatment will be sought.

3 Responsibilities of the Cholera Research Laboratory

a. To invest prudently the funds in carefully planned investigations of the type described in Section II. 2. above.

b. To integrate the use of these funds with the activities of the Cholera Research Laboratory which are supported from other sources, including SEATO, the Government of Pakistan, the United Kingdom, and others as they may develop.

c. To utilize these funds, wherever practicable, in the training of workers from Pakistan, the United States, and other countries in the field of cholera research and prevention.

d. To develop field demonstration areas in which to test under scientific observation methods of cholera prevention.

e. To undertake control field tests of methods of cholera prevention.

f. To provide materials and supplies available on the local market for support of the research mentioned above and to provide salaries in rupees for locally available personnel needed for the studies, and to provide air travel and local per diem for consultants and visiting scientists wherever necessary.

g. To report not less than annually on the total activities of the Cholera Research Laboratory and on the way in which the funds from this source have been utilized.

4 Responsibilities of the National Institutes of Health

a. To review on an annual basis, or more often if indicated, the progress of the work supported with these funds.

b. To provide scientific advice and guidance.

c. To foster the cholera research program by providing administrative support, insofar as possible, in the United States.

d. To provide financial support to the General Operating Fund of the CRL and to finance that portion of the research plan of the CRL described in Section II of this agreement.

5 Changes in Respective Responsibilities or Research Plans

Since the course of any scientific investigation is not entirely predictable, on the basis of findings or other considerations a change in approach or techniques used may be made after appropriate consultation between the Principal Investigator and the NIH Project Officer.

Section III

Period of Performance

The work described in Section II shall begin on January 1, 1962 and shall not extend beyond December 31, 1963, unless provided for by amendment to this Agreement.

Section IV

Compensation

1. It is mutually agreed that the Cholera Research Laboratory shall be paid in Pakistan rupees for the cost incurred, as accepted by the NIH, in carrying out the research activities described in Section II of this agreement. The maximum payment by the NIH to the Cholera Research Laboratory under this agreement shall not exceed 1,700,000 Pakistan rupees.

2. It is recognized that during the period this project is in effect official action may be taken to re-evaluate the medium of exchange within the country. This will have a direct bearing upon the amount of work which can be performed with the amount of money specified in this agreement. Therefore, should the value of the internal foreign currency fluctuate not more than ten percent, either up or down, as a result of an official re-evaluation, an appropriate adjustment in the remaining work to be performed will be worked out mutually. Should the plus or minus fluctuation exceed ten percent, an appropriate adjustment in the program may be worked out mutually or either party may call for a renegotiation of the program costs for the uncompleted portion thereof.

3. Budget Plan

The Cholera Research Laboratory will be reimbursed for the costs incurred in carrying out the research activities set forth in Section II above as provided in the following summary. The detailed budget is tabulated in the appendix.

PART A

Support for CRL General Operating Fund	Rupees First Year	Second Year
Total NIH Contribution	210,000	210,000

PART B

	Support for Section II		
a.	Salaries and Wages	203,250	245,525
	Professional Staff	(87,000)	(104,850)
	Technical and Supporting Staff	(116,250)	(140,675)
b.	Materials and Supplies	99,500	146,000
	Supplies and Materials	(60,000)	(82,500)
	Transportation of Things	(15,000)	(18,000)
	Rents and Utilities	(8,000)	(18,000)
	Communications	(1,500)	(2,500)
	Other Contractural Expenses	(15,000)	(25,000)

	Rupees First Year	Second Year
c. Travel Expenses	92,700	120,360
Within Country	(12,500)	(21,720)
Outside Country	(80,200)	(99,140)
d. Equipment	25,000	20,000
e. Other Expenses	113,305	213,860
Indirect and Overhead Cost	(13,305)	(13,860)
Miscellaneous	(100,000)	(200,000)
TOTALS (PART B)	533,755	746,245
GRAND TOTALS	743,755	956,245

4. Changes in Budget Plan

Any circumstances which in the opinion of the Principal Investigator or the Collaborating Institution will require a modification of more than 10 percent from each of the above estimated lettered categories of expenditure will require prior approval of the NIH Project Officer.

Section V

Method of Payment

1. Advance Payment:

Upon signing of this Agreement by both parties, the NIH will make a payment to the Cholera Research Laboratory to begin this program in the amount of 743,755 Pakistan rupees for the period January 1, 1962 to December 31, 1962.

2. Suceeding Payments

The second payment will be made at the expiration of the period for which the first payment was made. The Cholera Research Laboratory agrees to submit the following information to the NIH two months prior to each payment date:

a. A brief, but descriptive, narrative progress report of the scientific aspects of the research clearly indicating significant factors with respect to progress of the work;

b. A fiscal report which will show the actual amounts of money obligated by the Cholera Research Laboratory in behalf of this agreement;

c. A statement of the estimated financial requirements for the following period, indicating any overages or shortages available from the prior period, together with explanation of significant changes in financial requirements for specific purposes. Authorization of payment for the succeeding period will then be made based on an evaluation of this information.

3. Unexpended Balances:

The Cholera Research Laboratory agrees to return without delay any unexpended balance in this project in its possession at the end of the Agreement period or the termination of the project, whichever comes first, to the NIH without demand, subject to negotiation concerning amount required to liquidate obligations previously incurred in the performance of work under the Agreement.

Section VI

Records and Reports

1. Records

The Cholera Research Laboratory agrees to keep adequate records for documentation of progress made and status of this project as well as for preparation of reports on the scientific aspects of this program; and further agrees to keep records of obligations and expenditures, together with receipts, vouchers, correspondence, and memoranda associated with funds received and expended in carrying out the research provided for in this Agreement.

2. Reports

a. As specified in Section V-2 above, a narrative report descriptive of the progress of the work provided for under this research agreement will be submitted two months in advance of each payment period and in no case less than annually.

b. In addition, the Cholera Research Laboratory agrees to furnish, at the conclusion of this Agreement, a final report in a form suitable for publication, including all pertinent technical data and summarizing the work done, the results accomplished, and the conclusions drawn therefrom.

c. The Cholera Research Laboratory agrees to submit such interim reports or information on the status or progress of research under this agreement as may be necessary in connection with special events or problems arising during the course of the work, either on its own initiative or at the request of the NIH.

d. None of these arrangements for reports shall preclude full informal exchange of correspondence or other communication between the principal investigator and the Project Officer at NIH.

All reports and other communications will be transmitted in the English language, unless otherwise provided for.

3. Access to Facilities, Records, and Accounts:

The parties to this agreement or their accredited representatives will have access at any reasonable time to that part of the research facilities or offices utilized in connection with the research project described in this agreement for the purposes of observing the status and progress of this project, and all data, information, records, reports, and accounts relating to this project shall be available to these representatives and shall be maintained available for examination for a minimum period of two years beyond the completion of the project or termination of the Agreement. Officers or employees of the Cholera Research Laboratory, or other personnel assigned to or engaged in the conduct of this project shall be available for consultation with the Project Officer or his representatives at any reasonable time.

Section VII

Equipment, Supplies, and Materials

Those residual values of equipment and unconsumed supplies and materials remaining at the completion or termination of the project will be disposed of at the direction of the NIH after appropriate negotiation with the Cholera Research Laboratory.

Section VIII

Publication and Patents

Publication of findings shall be at the discretion of the Cholera Research Laboratory unless otherwise provided for subject to the limitations relating to patents set forth below. Acknowledgement of the NIH assistance in the conduct of the work covered in the publication should be noted in an appropriate manner.

Any patentable invention or improvement resulting from work carried out under this Agreement, insofar as the United States of America is concerned, shall be assigned to the United States Government as represented by the Secretary of the Department of Health, Education, and Welfare. Rights to patentable results in countries other than the United States of America shall be in accordance with the policy of the Cholera Research Laboratory, provided that an irrevocable and royalty-free license to practice such invention throughout the world be issued to the United States Government, and that, as stated above, the results or findings be available without restriction to the general public.

With respect to patentable results and in accordance with the foregoing paragraph, the Cholera Research Laboratory agrees to cooperate in the preparation and prosecution of any United States patent application, to execute all papers requisite to such prosecution and to secure the cooperation of any of its employees in the preparation and prosecution of such papers.

Section IX

Research Assistance

Cognizance is taken of the collaborative nature of the Cholera Research Laboratory which receives support from the United States, the Government of Pakistan, the United Kingdom, and other SEATO countries and agencies. The Director, Cholera Research Laboratory, will inform NIH of any major changes in the support arrangements for the Laboratory.

Section X

Principal Investigator and Project Officer

The Principal Investigator designated in this Agreement will be in active direction of the project and responsible for its administration on the part of the Cholera Research Laboratory. Change or substitution of the Principal Investigator will be made only with written approval from the NIH. The NIH Project Officer designated in this Agreement shall be responsible for the administration of this Agreement on the part of the NIH.

Section XI

Termination of Agreement

This project may be terminated at any time by mutual agreement of the Cholera Research Laboratory and the NIH or within six months after written notice of either of the parties. In the event of termination, the Cholera Research Laboratory shall submit to the NIH a report summarizing the work done, the results accomplished, and the conclusions resulting therefrom. Payment shall be made, upon presentation of proper claim, for the cost of the work performed and for other obligations incurred, but unliquidated, at the time of termination, less any funds previously paid, and the NIH shall not be liable for any further claims, provided the claim submitted by the Cholera Research Laboratory shall not exceed the amount of total obligations stated in this Agreement. In the event of termination, any unexpended balances of payments made not required for services rendered or obligations incurred shall be returned to the NIH by the Cholera Research Laboratory.

IN WITNESS WHEREOF, the parties have executed this research agreement as of the date and year first above written.

NATIONAL INSTITUTES OF HEALTH

By James A. Shannon

Director, National Institutes of Health
(Official Title)

(Date)

COLLABORATING INSTITUTION

Pakistan-SEATO Cholera Research Laboratory

By Frank Taylor

Director
(Official Title)

Dacca, East Pakistan
(Business Address)

(Date)

APPENDIX

DETAILED BUDGET, PART B

Salaries and Wages — Job Titles		Rupees First Year	Second Year
Professional			
1 Bacteriologist		25,000	26,250
1 Bacteriologist		—	15,000
2 Physicians		30,000	30,000
1 Water Chemist		12,000	12,600
2 Epidemiologists		20,000	21,000
	TOTALS	87,000	104,850
Technical and Supporting			
10 Technicians (12 second year)		40,000	52,000
3 Laboratory Assistants		8,000	8,400
1 Media Maker		3,000	3,150
2 Animal Handlers		6,500	6,300
5 Bottle Washers		8,750	9,000
1 Statistician		9,000	9,450
5 Sociologists		25,000	26,250
5 Field Assistants		12,500	13,125
Part - Time Employees		3,500	12,500
	TOTALS	116,250	140,675
Supplies and Materials			
Laboratory Supplies and Materials		25,000	35,000
Office Equipment and Supplies		15,000	17,500
Experimental Animals, Fertile Eggs, etc.		5,000	7,000
Animal Food, Bedding, and Supplies		10,000	15,000
Dry Ice		5,000	3,000
	TOTALS	60,000	82,500
Transportation of Things			
Transportation of Specimens from Field to Dacca Laboratory		3,000	5,000
Shipment of Specimens from Dacca to Overseas Laboratories		2,000	3,000
Shipment of Laboratory Equipment, and Clearing Charges, etc., where paid by CRL		10,000	10,000
	TOTALS	15,000	18,000
Rents and Utilities			
Rentals of Vehicles for Field Work		5,000	10,000
Utilities in Field Stations (including Fuel for Stoves, Generators, etc.)		3,000	3,000
	TOTALS	8,000	18,000
Communications			
Post and Telegraph		1,500	2,500
Telephone (covered by GOP as utility)		none	none
	TOTALS	1,500	2,500

Appendix 2

Other Contractural Expenses		Rupees First Year	Second Year
Renovation of Space at Field Stations to Accommodate Laboratory Equipment		15,000	25,000
	TOTALS	15,000	25,000
Travel Expenses			
Travel Within Country		12,500	21,720
Travel of CRL Staff Outside Country		29,400	34,400
Travel and per diem for Consultants and Visiting Scientists		50,800	64,740
	TOTALS	92,700	120,860
Equipment			
Scientific Equipment That Can Be Procured Locally		5,000	5,000
Furniture		20,000	15,000
	TOTALS	25,000	20,000
Indirect and Overhead Cost			
Equipment Depreciation (Equipment to be Given to GOP at Termination)		none	none
Maintenance and Repair of Equipment		10,000	10,000
Business Staff and Non-Identifiable Indirect Costs		3,305	3,360
	TOTALS	13,305	13,360

Miscellaneous

Various expenses, not classifiable above, arising in field operations away from the base laboratory; emergency requirements for labor, services, supplies, and rentals; and such other expenses of the CRL, necessitated by special conditions of climate, geography, economics, or other conditions as may be required to insure the safety and welfare of personnel and patients, the protection of property, and the continuity and expeditious pursuit of the research effort.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

First Meeting of The

DIRECTING COUNCIL

Dacca, East Pakistan
February, - 1962

DC 1/2
Feb 5 1962

PARTICIPATION OF SEATO NATIONS IN THE
PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Only the Government of Pakistan and the United States of America are signatories to the Agreement of December the 30th, 1961. But both of these countries sincerely desire the scientific, financial and administrative participation of other SEATO nations. In revising the original bilateral agreement, one objective of which was to facilitate the participation of other nations, it was obviously impossible for the Governments of Pakistan and the United States of America to establish the conditions under which other nations might participate. Rather is it suggested (Annex III, DC-1/1, Article I) that the participation of other SEATO nations be the subject of consultation within the SEATO Council and that the Director of the CRL, with the concurrence of the Directing Council, consult with officials of individual SEATO nations concerning the nature and extent of their participation.

In the line with this suggestion, the Director of the CRL attended the meeting of the SEATO Council representatives on January 10th 1962. On this occasion the representatives of the SEATO nations were presented with copies of the Agreement of December 30th, 1961, and were advised of the suggestion that the council might wish to discuss among its members the general problem of participation in the CRL. It was, of course, impossible to give the SEATO Council any concrete indication of how individual nations might be expected to participate. The formula for financing SEATO itself, viz., Australia 12½%, France 12½%, New Zealand 8 1/3%, Pakistan 8 1/3%, Philippine Republic 8 1/3%, Thailand 8 1/3%, the United Kingdom 16 2/3% and the United States 25%, obviously is not applicable to the CRL.

At no point in the Agreement is there a clear-cut defination of "participation". A careful reading of the document, however, does give a picture of the intent. Paragraph 2 of the Agreement establishes the CRL as " an Autonomous Agency supported by the Government of Pakistan and the Government of United States of America.....and by the Governments of such other SEATO nations as may desire to participate....."

In Article B is to be found the following statement; "The Directing Council of the CRL will consists of one member representing each of the nations participating in the CRL....." In the same Article B it is established that "the Directing Council.....(is) to approve, with the approval of the participating nations, the level of the general operating fund of the CRL....."

In Article D, sub paragraph 1b, it is stated that "the CRL General Operating Fund (is) created by pooled funds from the participating nations at the beginning of the fiscal year."

Sub paragraph 1d of Article D provides for the use of "such additional funds, personnel, or contributions, in kind, as may be contributed by interested nations,....." These additional funds may come from participating SEATO nations or from other interested countries. (It should be noted that sub paragraph 1c of Article D specifically authorises additional funds to be contributed by the United States.)

Article E provides that "unless the participating nations through direct negotiation or through action of the Directing Council determine otherwise.....2. For the fiscal years 1962 and 1963 the CRL General Operating Fund shall consist of not less than Rs.420,000, for each fiscal year from a .....b. contributions from other SEATO nations which desire to participate in the CRL."

From the above it is apparent that the participating nations should be contributing to the General Operating Fund, and should have a voice in establishing the total amount of this fund. Although the General Operating Fund is envisaged as a rupee fund, there may well be a certain advantage to the CRL in not insisting on the conversion of foreign currencies in those cases where such currencies can be readily used for the purchase of supplies and equipment or for the payment of salaries of non-Pakistani staff members.

There is no established formula for the amount to be contributed by each participating SEATO nation; this has purposely been left subject to negotiation with the individual country. It is to be anticipated that the contribution from each participating nation should be sufficient to clearly demonstrate the interest of the nation concerned in the CRL program and to justify its representative on the Directing Council in taking a critical attitude towards the program and activities of the CRL, and in making constructive suggestions.

It is suggested that the Directing Council after careful consideration of this matter may wish to authorise the Director to negotiate with the proper officials of individual SEATO nations concerning the nature and extent of each country's participation.

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PAKISTAN SEATO CHOLERA RESEARCH LABORATORY

First Meeting Of The

DIRECTING COUNCIL

Dacca, East Pakistan
February 1962

DC 1/3
February 19, 1962.

FINANCIAL REGULATIONS AND AUDIT

Basic to the operation of an autonomous agency such as the Pakistan-SEATO Cholera Research Laboratory is the careful regulation of the expenditure of funds entrusted to its care and adequate provision for a continuing audit to determine that all funds have been honestly accounted for and to establish that expenditures have been made in accord with authorized procedure.

Under the Interim Agreement of July 28, 1961, the CRL operations were financed during the last four months of 1961 with funds furnished to the CRL through the Provincial Office of US AID in East Pakistan. It was natural that these funds were spent according to the financial regulations of AID and that AID undertook the responsibility of auditing their expenditure.

From the standpoint of the CRL there are many advantages in using at least for the present the AID financial procedure. In the first place, it is a procedure which has been developed over a number of years and has been found generally useful in practice, and secondly the present staff of the CRL is accustomed to it.

There are minor points in which the AID regulations have proved troublesome; namely, (1) the prohibition of financial advances to employees to cover necessary travel and advances against goods ordered at the time of placing the order; and (2) the requirement of quadruplicate vouchers for each item of expenditure from petty cash.

The Directing Council may wish to authorize the expenditure of funds under the AID financial regulations except for minor modifications permitting necessary advances against travel orders and to suppliers against goods ordered and authorizing a single voucher for petty cash expenditures on a monthly rather than on an item by item basis.

(continued)

The Directing Council may wish to authorize the Director to arrange for the audit of CRL accounts as part of the administrative support of AID to the CRL in accord with Paragraph 3* of article 'D' of the Revised Agreement of December 30, 1961 (Annex IV DC 1/1).

The Directing Council may wish to authorize the Director, in case AID for any reason be unable to carry out the audit, to contract with Price Waterhouse & Co. for auditing and certifying services.

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*3. The AID will participate in the giving of operational and administrative support and guidance to the NIH in the direction of the CRL. The character and amount of the participation of the AID may vary from time to time depending on direct negotiations between the NIH and AID .....

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PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

First Meeting of The

DIRECTING COUNCIL

Dacca, East Pakistan
February 1962

DC 1/4

SCOPE OF THE PROGRAM OF THE PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

The program of the Pakistan-SEATO Cholera Research Laboratory as outlined in the Revised Agreement of December 30th 1961 (ANNEX IV DC 1/1) is a broad one, with provision for collaboration with all interested nations and with other agencies.

The following significant paragraphs occur in the Revised Agreement:

"The modern approach to the prevention of communicable diseases in this age of jet transportation must be through eradication of the permanent seed beds of infection. The great historic seed bed of cholera includes parts of East Pakistan. The broad objective of the CRL is the development, evaluation and demonstration of measures of prevention and eventual eradication of cholera.

The CRL is established at the Institute of Public Health, Mahakhali, Dacca, East Pakistan. The Bacteriology Section has been operative for some months; additional Sections of Epidemiology, Physiological Chemistry, Water Analysis, Clinical Observation and Field Demonstrations are being developed.

The activities of the CRL necessarily cover all phases of cholera investigations and prevention. Attaining the immediate objective, i.e., the elucidation of the epidemiology of cholera in East Pakistan with the identification of those factors which permit cholera to remain endemic, decade after decade, depends on the improvement and standardization of bacteriological and immunological methods. As the epidemiological studies proceed, the effects of various means for preventing cholera will be studied. Among these are the effects (1) of intensive vaccination of selected population groups with different types of vaccine and (2) of the provision of potable water to discourage the drinking of tank and ditch waters. Studies will be made of the abnormal physiology of cholera cases in a search for a better system of treatment.

The CRL is to be capable of serving as the base for regional anti-cholera operations; it is intended that the studies and observations in East Pakistan will be supplemented by research based on both laboratory and field work in other cholera-infected countries. The CRL is a centre where visiting scientists and public health officials with special interests in and knowledge of cholera may come for firsthand contact with the problem. It is also a place where scientists and health administrators from other countries may be trained in methods for the study and prevention of cholera.

The activities of the CRL in East Pakistan will be coordinated to the maximum extent possible with the programs of the Health Services and of Public Health Engineering of the GOEP; in West Pakistan similar coordination with the Provincial authorities will occur should occasion arise for studies there; full advantage will be taken also of the opportunity for collaboration with projects sponsored by the Public Health Division of the AID Mission to Pakistan.

There is no SEATO cholera problem distinct from the cholera problem of the non-SEATO nations of the region and the final solution to the problem must come through a consolidated regional effort. Every effort is to be made to interest all cholera-infected nations and all countries threatened with cholera, and the corresponding Regional Offices of the World Health Organization, in the solution of the cholera problem.

Free interchange of information and direct collaboration wherever possible will be arranged with investigators and health authorities of nations and with the World Health Organization and with its Regional Offices.

Private agencies will be encouraged to support special cholera research and prevention study projects administered by the CRL."

A further outline of the objectives of the program of the CRL supported by the Research Grant Agreement with the NIH of January 25 1962 (annex V, DC 1/1) is worded as follows:

"Objectives and Description of Work to be performed

1. Objectives: To develop, improve, and demonstrate measures for the prevention and eventual eradication of cholera.

2. Description of Research Plan: The epidemiology of cholera in East Pakistan, a highly endemic area for this disease, will be investigated intensively, and will be studied elsewhere as opportunities occur. The ecology of the cholera vibrio, insofar as it may exist in water or other media apart from the human host, will be studied. Means for preventing and controlling cholera will be tested; these will include studies on intensive vaccination in selected areas and observations on the effect of the provision of potable water by the health authorities in other areas. Clinical studies directed toward a better understanding of the host-parasite relationship in acute cholera will be undertaken and, based on information obtained there, improved methods of prevention and treatment will be sought."

It is obvious that the CRL is not now ready to immediately undertake the broad program outlined above. The need for such a program has been emphasized during the months which have passed since this program was drafted. The unexpected spread of cholera to Macan, Hongkong, Communist China and the Philippines during the last half of 1961 found the CRL unprepared to render assistance or to take advantage of the opportunity for study of cholera epidemics in non-endemic areas.

The Directing Council may desire to take note of the need for execution of a broad cholera program as the DC studies the programs and budgets for future years.

DFLS:Pcb

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

First Meeting Of The

DIRECTING COUNCIL

Dacca, East Pakistan
February 1962

DC 1/5
February 19, 1962.

AUTHORITY OF THE DIRECTOR OF CRL

The proper administration of an agency devoted to the study and eventual development of methods for the prevention of an epidemic disease such as Cholera throughout a region requires broad authority in the hands of its chief administrative officer. The Revised Agreement of December 30, 1961, provides for such broad authority for the Director of the CRL in the following articles:

C. DIRECTION OF THE PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY.

2. As authorized in this Agreement or as additionally authorized by the Directing Council, the Director may on behalf of the CRL receive and disburse all funds which are owned by or come under the control of CRL; acquire and take title to all forms and types of moveable property, including equipment, supplies, and motor vehicles; appoint and remove personnel; determine salaries and allowances; negotiate, enter into, and execute contracts, leases, purchase orders, and requisitions; and do all other things necessary to fulfilling his responsibilities for the scientific and administrative functions of the Cholera programs.

D. FINANCING OF PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY ACTIVITIES.

1. The laboratory, hospital, and field activities of the CRL are financed from :

e. ..... The Capital Reserve Fund may be used by the Director, CRL, to finance any construction, remodelling and installation, or modification of utilities deemed necessary by the Director, CRL, and mutually agreed to by authorities of the GOP to facilitate the Cholera Research Program at any time or place.

(continued)

2. All funds, excepting those of the CRL General Operating Fund to which the GOP contributes directly and such funds as may be made available specifically for designated research projects, may be used in developing the international phases of the cholera research program.

It is clear that these broad powers of the Director of CRL are to be exercised within the framework of activities authorized by the Directing Council.

The Directing Council may desire to take note of the broad authority of the Director to act and to delegate this authority to the Deputy Director. (Article F, para 1).

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

First Meeting Of The

DIRECTING COUNCIL

Dacca, East Pakistan
February 1962

DC 1/6
Feb 20 1962

Basis of Systematic Routine Bacteriologic Year Round Survey of the Occurrence of Cholera in Given Geographic Areas.

The Epidemiologist today has for the first time the tools with which to readily determine where and when Cholera is occuring. Not only is the diagnosis of suspect out-breaks easily made in the field with the new method but it is possible to establish wide spread survey services utilizing local representatives already resident in the smaller communities of endemic areas. These possibilities depend on work done in connection with the Pakistan-SEATO Cholera Research Program during 1960-61, a description of which occurs in the Annex to this document.

DFLS:
pcb

BACTERIOLOGICAL DIAGNOSIS OF CHOLERA UNDER FIELD CONDITIONS

Dr. K.A. Monsur

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Introduction:

In underdeveloped countries where laboratory facilities are very meagre bacteriological diagnosis of cholera in outlying areas always presents a difficult problem. Recent studies of media at the Pakistan-SEATO Cholera Research Laboratory show that it is possible to make an accurate bacteriological diagnosis of cholera even in the remotest areas of the province. Two media found most useful are (1) a solid alkaline, bile salt, tellurite, gelatin agar plate which acts as a highly selective medium for Vibrio cholerae (Monsur, 1961), and (2) a liquid alkanine, bile salt, peptone, tellurite medium which acts both as an enrichment and as a preservative fluid. With these two media the bacteriological diagnosis of cholera in rural areas can be approached from two different angles, viz:

A) on the spot diagnosis by a mobile team in the field, supplied with media sent out periodically from the base laboratory; and

B) central laboratory diagnosis of specimens posted in a preservative fluid medium; reliable results can be had even after a week or more.

Materials and Methods:

A) Field diagnosis by bacteriological technicians with minimum equipment. The technician is supplied from a base laboratory with prepared solid medium in flasks and with sterile petri dishes. Plates are poured in the field by melting the medium over boiling water. Before pouring plates the requisite quantity of potassium tellurite solution is added to the melted medium. The medium is highly inhibitory for other organisms, especially the anthracoids, and accidental contamination should not be troublesome. If plates are poured in small lots and used in a day or two, refrigeration is not necessary. The plates may be inoculated from rectal swabs directly or after enrichment in liquid medium. V. cholerae grows abundantly on the plate at room temperature and icubation is not essential. Because of the marked inhibitory effect of the medium on other organisms and the large numbers in which vibrios are generally present in the stool in early stages of cholera the growth is generally pure and abundant. It is usually possible to confirm the diagnosis serologically in the field by slide agglutination.

Previous workers have taken advantage of the fact that V. cholerae is aproteolytic organism for its isolation on gelatin-agar plates. On gelatin-agar each colony of V. cholerae develops a characteristic halo (Smith and Goodner, 1958). Useful though this gelatin-agar is for the isolation of V. cholerae, it is non-selective and is not inhibitory of competing organisms. During a study for a preservative fluid for V. cholerae it was found that sodium taurocholate and potassium tellurite greatly enhanced the chances of isolation of V. cholerae from material heavily contaminated with other organisms. The medium prepared by combining these ingredients with those of gelatin-agar plates is highly selective for V. cholerae. The organism grows abundantly on this plate and gives typical colony morphology, permitting easy identification (Monsur, 1961). The composition of the medium is as follows:

(more)

Trypticase	... ...	10.0	gms
Sodium chloride	... ...	10.0	gms
Sodium taurocholate	... ...	5.0	gms
Sodium carbonate	... ...	1.0	gms
Gelatin (Difco)	... ...	30.0	gms
Agar agar	... ...	15.0	gms
Distilled water	... ...	1	litre

The medium is sterilized by autoclaving and potassium tellurite is added to a final concentration of 0.5 to 1 x 10^{-5} (from one part in 200000 to one part in 100,000) before pouring plates.

B) Studies at the Cholera Research Laboratory show that at least two fluid media not only enrich but also preserve V. cholerae. One of these is alkaline-peptone water containing 10.0 gms trypticase, 10.0 gms sodium chloride and 1.0 gm sodium carbonate per litre, with a pH of about 9.2. The other is the same as the selective medium described above with omission of the two solidifying ageats, gelatin and agar. This medium is now used as a preservative for specimens coming from a distance.

The medium is distrubuted in 2 oz screw-capped bottles in 25 ml. quantities and potassium tellurite is added to the medium at the time of inoculation to a final concentration of 1 x 10^{-5}. Separate addition of potassium tellurite in the field can be avoided by pretreating the rectal swabs used for collecting specimens with the proper amount of potassium tellurite beforehand. These swabs, if kept well-dried, have given satisfactory results when used up to 3 months after preparation.

Observations:

A) The solid medium has a high pH of about 8.5; this, together with the sodium taurocholate and potassium tellurite, makes the medium highly inhibitory for most organisms. On the other hand V. cholerae grows very well producing characteristic colonies which attain a large size (3-4 mm.) in 48 hours with typical black centres and well-defined halos around each colony. As a rule, the colonies can easily be identified at 24 hours by their characteristic grayish appearance and surrounding halo. Quantitative studies with artificially infected stool suspensions have shown that the medium is capable of detecting a single viable V. cholerae in the inoculum, even though it be heavily contaminated with other faecal organisms.

B) The two liquid media have a pH of about 9.2. Experiments were carried out in which stool suspensions were added to a series of screw-capped bottles containing 25 ml quantities of these media. The bottles were then inoculated with serial dilutions of cultures of V. cholerae and a loopful from each of these inoculated bottles was plated out on different media at various intervals. The results of these experiments, when compared with the viable count of the original peptone water culture of V. cholerae used for inoculation, indicate that both media are capable of detecting even a single viable organism per ml of stool suspension. The purity of the final growth and the persistance of V. cholerae in the presence of other organisms seem to be better in the medium containing bile salts and potassium tellurite than in plain alkaline peptone water.

These two fluid media were tested with swabs from cholera cases. Rectal swabs from cases were put in screw-capped bottles containing the medium to be testested and the caps were screwed down tightly. In most cases two pairs and in some three pairs of bottles were used. One of each pair contained plain alkaline peptone water and the other had bile salt and potassium tellurite added. One loopful from each of the first pair of bottles was plated out some hours after incubation and, if this was negative, again the following morning. The remaining pair were kept at room temperature without being opened and were plated out on the 7th day. When a 3rd pair of bottles was available these were tested after 15 days. In a small number of cases where it was not possible to follow this routine rigidly, only the relevant information has been included in the analysis of data. During the period from May to December 1961, (a) 73 positive cultures were put in alkaline peptone water and kept at room temperature; 62 were positive and 11 negative on the 7th day; (b) 74 positive isolations, were put in alkaline bile salt-tellurite peptone water and kept at room temperature; 71 were positive and 3 were negative on the 7th day. There was then a loss of 11 in 73 in plain alkaline peptone water and 3 in 74 in alkaline bile salt tellurite peptone water. This result fits the experimental observations described above. The growth obtained from alkaline bile salt tellurite peptone was definitely purer than that obtained from plain alkaline peptone water. Alkaline bile salt tellurite peptone succedded in growing the organism after overnight incubation in every case in which the other medium was successful. From the point of view of rapidity of isolation, alkaline peptone water seems to give a slightly earlier positive result on a larger number of cases than does alkaline bile salt tellurite peptone, although in every case, the latter medium gave a similar positive or perhaps a better growth within 24 hours. Enrichment and preservation of the culture for a prolonged period (about a week or so) is best gotten with alkaline bile salt tellurite, whereas plain alkaline peptone water is preferred for a rapid diagnostic growth.

Conclusion:

Two additional tools are available, to be used singly or together for the field diagnosis of cholera. A mobile team can now make a spot diagnosis with plates and simultaneously send control specimens to base laboratories for confirmation. When field teams are not available, specimens from suspect out-breaks may be sent routinely by local lay representatives to base laboratories by post or otherwise. Under this system a base laboratory can serve an extensive area with reliable diagnoses on material sent in by non-technical representatives.

These methods offer new possibilities for the early diagnosis of out-breaks of cholera permitting health authorities to take effective steps early in an out-break before extensive spread occurs.

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PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

First Meeting Of The

DIRECTING COUNCIL

Dacca, East Pakistan
February 1962

DC 1/7
February 20 1962

STATUS OF MEDICAL RESEARCH FACILITIES OF THE PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY.

Introduction:

With the decision that the SEATO-sponsored cholera research program could best be implemented by the establishment of a base laboratory in Dacca, East Pakistan, the procurement of scientific equipment and supplies was begun in the United States, under the authority of the initial agreement between SEATO and the U.S. Government (DC 1/1). Even before the formal conclusion of the agreement establishing the CRL, the governments of Pakistan and the United States began the collaborative effort of remodeling and furnishing the building to fill the needs of the Laboratory. This document sets forth, in abbreviated form, the status of the building and laboratory equipment at the present time.

Equipment:

Inasmuch as little medical or scientific equipment is manufactured within Pakistan, most of the apparatus required for the research program of the CRL had to be imported. In addition to the material procured in the United States from funds appropriated through SEATO, other valuable laboratory supplies and equipment have been given to the CRL by the Government of the United Kingdom and by agencies of the U. S. Government. Finally, a fully equipped water and sewage analysis laboratory has been made available, on a long-term loan basis, by the U.S. A.I.D. mission to Pakistan. An inventory of the major items of non-expendable laboratory equipment, owned by the CRL, exclusive of furniture, is appended to this document as Annex I. A similar list of the equipment of the water laboratory appears as Annex II. It should be noted that only apparatus actually on hand is listed, and that much of the equipment donated by the United Kingdom, which is still in transit, does not appear.

Building:

The space in which the CRL is housed has been made available by the Government of Pakistan. The host government has undertaken extensive remodelling to adapt the building to the needs of the cholera research program, and has also provided much of the furniture for the laboratories and offices.

The headquarters of the CRL are located in the south wing of the Institute of Public Health of the Government of East Pakistan, located in the semi-rural suburb of Mohakhali, north of Dacca City proper. The rapid northward growth of the city may be expected soon to envelop the area in which the Public Health Institute is located. The Institute has spacious, well-drained grounds, planted with trees, grass, and gardens. The main building dates from 1953, and consists of five principal wings, each of three floors, connected on all levels by corridors which are roofed over, but open on the sides. Stairways are located on these inter-wing corridors, not within the wings themselves. The wing occupied by the CRL measures 30 by 190 feet, and consists of an open verandah - corridor on the south, 10 feet wide, and a series of rooms opening from it. The rooms are built up from modules 10 feet wide and 20 feet deep. The building is of brick and concrete, with a flat roof. Interior partitions are non-weight bearing, being composed of one course of brick. Exterior doors and windows are of metal sash; interior doors of wood. Rooms are numbered sequentially from west to east, with the first digit giving the floor, and the next two the position. Each ten-foot module is assigned a number, whether or not it is a separate room.

Wiring:

All walls being solid, pipes and wiring must be exposed on the interior surfaces of walls. The building is supplied with electricity from Dacca City, which is 50 cycle, three phase, 230/400 volt A.C. The voltage tends to vary, rising or falling 10 to 15% from the mean. The main circuit breaker for the laboratory is rated at 250 amperes. There are two wiring systems, one for 230 volt single phase A. C., and one, originating in a 22.5 KVA transformer, for 115 volts, 50 cycles. The former circuits employ British standard outlets in two sizes, one for 15 ampere, 3 pin grounding plugs, and one for 5 ampere, 2 pin plugs. The latter are equipped with American type duplex outlets for parallel tine plugs with a ground pin. Electricity supplies almost all of the energy needs of the Laboratory, the most important of which are for air conditioning, and for heat for ovens, autoclaves, and stills.

Plumbing:

Water is supplied from a central storage tank on the Institute grounds, which is fed from a well. The water has a high mineral content, and the pipes often contain air bubbles. The principal water supply pipes are of galvanized iron, but subsidiary pipes within many of the laboratories are of copper tubing supplied from the U. S. There is one electric hot water heater (capacity 52 gallons, element 2500 watts), which supplies hot water to the glassware and media rooms of the bacteriology section.

There are two types of drain pipe in the CRL wing. Storm drainage from the roof, and sanitary and floor drainage from within the building is carried in 4 - inch cast iron pipe. All this drainage, with the exception of waste from toilets, enters an open drainage ditch behind the building. Those laboratory areas equipped in 1960 under N.I.H. guidance are drained by a separate system of plastic pipe which, together with the toilet waste, enters an underground sewer and septic tank. In addition to the water and drain pipes, there is a system of /pipe iron/on the ground floor which was intended for gas, but is not in use.

Allocation of Space:

For the immediate future, it is planned that space in the building be utilized as follows:

Ground floor: Hospital, including supporting activities such as kitchen, laundry, medical record files, etc.

First Floor: Clinical Research Laboratories (Physiology and Biochemistry), Library and Seminar Room, Animal Room, Bacteriological Laboratories, Glassware and Media Rooms.

Second Floor: Administrative Offices, Epidemiologic Data Processing, Water Analysis Laboratory, Stockroom.

Alterations and Expansion Under Consideration:

The adaptation of the building, as it existed at the beginning of 1960, to the needs of the CRL, was planned primarily at N.I.H. in Washington, D.C. At that time, the scientific staff of the Laboratory had not yet been named, so that the architects responsible for the preparation of detailed plans had no chance to consult with individuals familiar with the technical problems that would be encountered. In addition, they were hampered by lack of detailed knowledge of building practices, materials, and skills available in Dacca. The decision to proceed at once with the outfitting of the laboratory resulted in certain inefficiencies in the design of facilities, but undoubtedly saved valuable time in the initiation of the first scientific work. It was inevitable, however, that as the program got under way, it would become necessary further to modify the building plans. The acquisition of the water laboratory from A.I.D. was unforseen, and no space in the building had been allowed for it. Changes have been made, and others planned, that reflect the dynamic status of the research plans of the CRL.

A number of minor building modifications, mostly consisting of the installation of equipment, are either under way at this time, or are at the stage of approved plans. The installation of water laboratory equipment, including air compressor and fume hood in rooms 210 and 213, and the installation of additional air conditioners and medical equipment in the hospital are in this category. Rooms 101 through 105 are being equipped as laboratories for clinical research, and room 003 as a laboratory for the hospital; these changes involve major electrical and plumbing installations and will take more time. The animal room is being moved to room 109, where it will be close to the laboratories chiefly concerned.

Longer - range plans for expansion of facilities and more effective exploitation of the opportunities available to the CRL are in a more tentative stage. These plans involve the utilization of monies appropriated by the Government of Pakistan and A.I.D. for the Capital Reserve Fund. It is proposed that a one-story service building be constructed to the east of the Laboratory, connected to the Laboratory proper by a corridor or open walk. A stairway at the eastern end of the wing should be built at the same time, to permit traffic from all floors to the service building, and to facilitate movement between floors. The feasibility of installing a dumb-waiter in addition will be explored. Activities which are presently in the Laboratory, but which are noisy or heat-producing, or which do not recuire space that could be used as a laboratory or office, will be removed to the service building. These include storage; laundry, sterilization, and food preparation for the ward; and probably the preparation of sterile supplies, including bacteriologic media. In addition, space is required to house machinery which is either on hand or in transit, which includes an incinerator, a gas-making machine, and a large standby generator. Finally, it is felt that this apparatus should be supplemented by a boiler, to supply steam and hot water throughout the CRL and reduce the present uneconomical use

of electricity for heat, a line voltage stabilizer to serve the whole wing, a large deionizing column for water purification, and a maintenance shop. Only the roughest estimates of the cost of these improvements can be given at this time, but the information available is set forth in the budget (D.C. 1/) under the heading Capital Reserve Fund.

Conclusion:

The headquarters of the Pakistan-SEATO Cholera Research Laboratory consist of the building and laboratory facilities described above. Although the building alterations and other plans formulated when the laboratory was established are just now approaching completion, it is already apparent that not all needs have been met, and that further changes, primarily expansion, are indicated.

This information is placed before the Directing Council for its attention, and to assist it in the formulation of plans.

RSG:
PCB

MAJOR ITEMS OF EQUIPMENT BELONGING TO C.R.L.

Laboratory Instruments:

Analytic balances	...	...	4	
Other scales or balances	...	...	7	
Microscopes, laboratory	...	...	3	
" dissecting	...	...	3	
Scaler, Nuclear Chicago model 163	...	...	1	
" " " " 172	...	...	1	
Scaler - ratemeter, Picker model 5810		...	1	
Shielded, thin-end window Geiger detector		...	2	
Shielded well type scintillation detector		...	2	
Solid crystal scintillation probe	...	...	1	
Aminco Cotlove chloride titrator	...	...	1	
Aminco osmometer	...	...	1	
Van Slyke blood gas apparatus	...	...	1	
Glass electrode pH meter	...	...	1	
Conductivity bridge	...	...	4	
Flame photometer	...	...	1	
Centrifuge, microhematocrit	...	...	1	
Spectrophotometers:	...	...	1	
B & L Spectronic 20	...	...	1	
Coleman Jr.	...	...	2	
B. & L Serum protein meter (refractometric)		...	2	

Laboratory apparatus:

Vacuum pumps	...	...	3	
Lyophilizing apparatus, rotary, P_2O_5		...	1	complete
Lyophilizing apparatus, refrigerated		...	1	complete with cart
Centrifuge, table top	...	...	3	
Centrifuge, Internat model 2	...	...	1	
" " " PR 2				
" High speed, non-refrigerated		...	2	
Tissue grinder, motorized	...	...	1	
Waring blendor	...	...	4	

Medical equipment:

Direct-writing ECG	...	...	1	
Ophthalmoscope	...	...	2	
Otoscope	...	...	2	
Examining table, stainless	...	...	1	
Gastro-evacuator pump	...	...	5	
Clinical scales	...	...	3	
Radiographic unit, portable, 100 mA	...	...	1	
Fluoroscope, vertical	...	...	1	
Film processing tank	...	...	1	
Dryer bin	...	...	1	

(more)

Picker-Polaroid Xray processing unit	...	...	1
Bowman Constant infusion pump	...	...	2

Refrigeration ecuipment:

Window air conditioners	...	...	37
Refrigerators, household type	...	...	5
" commercial, 2 door	...	...	1
Deep-freeze, RevCo	...	...	2

Heating ecuipment:

Incubators, bacteriologic	...	...	3
Ovens, various sizes up to 18 ft.^{3}	...	...	8
Autoclaves, 18" by 24"	...	...	2
Serologic water baths	...	...	3
Circulating constant temperature bath	...	...	1
Kitchen-type electric range and oven	...	...	1
Hot water heater, electric	...	...	1
Boiler type instrument sterilizers	...	...	6
Stills (cumulative capacity 5 gal./hr.)	...	...	4

Electric ecuipment:

Voltage stablizers, Sorensen electronic			
220 volt, 3 KW.	...	...	1
110 volt, 5 KW.	...	...	1
Step-down transformers, 220 to 110 volts, sizes ranging from 0.15 to 1.5 KVA	...	...	26
Cathode-ray oscillograph	...	...	1
Vacuum tube tester	...	...	1
Multimeter	...	...	1
Esterline-Angus recording milliammeter	...	...	2
DC Power supply, 0 to 600 volts	...	...	1
DC Power supply, 120 to 180 volts	...	...	2
Variable transformers (Variac & Powerstat)	...	...	4
Generator set, portable, 2.5. KW	...	...	2
" " trailer mounted, 7.5 KW	...	...	2
" " skid mounted, 10 KW	...	...	1

Mechanical Office Equipment:

Typewriters	...	...	8
Calculators, electric	...	...	2
" manual	...	...	1
Adding machine, electric	...	...	1
Mimeograph	...	...	1

Transport:

Jeep, 1960	...	...	1
Jeep Station Wagon, 1960	...	...	1
Chevrolet Station Wagon, 1957	...	...	1
Van trailer, 20 x 10 x 8 feet, fitted as laboratory			1
Farm trailers, 12 x 8 foot bed	...	...	2
Outboard motors, 7½ HP	...	...	2

Miscellaneous:

Incinerator, oil fired			1

pcb.

MAJOR EQUIPMENT OF WATER LABORATORY LOANED BY US AID TO C.R.L.

Centrifuge, International Model CM	...	...	1
Platinum evaporating dishes	...	...	6
Still, Barnstead, 2 gal./hr.	...	...	1
Muffle furnace	...	...	1
Glass electrode pH meter	...	...	1
Incubators	...	...	2
Microscope, standard	...	...	1
Microscope, dissecting	...	...	1
Drying oven	...	...	1
Air pump, pressure and suction, with tank	...	...	1
Spectrophotometer, Coleman Model 14	...	...	1
Water bath, thermostatic	...	...	2
Conductivity Bridge	...	...	1
Autoclave, 18" x 24"	...	...	1
Multiple stirrer, motorized	...	...	1
Kjeldahl apparatus	...	...	1
Flame photometer	...	...	1
Fume hood and blower	...	...	1
Analytical balance	...	...	1
Isopor field water analysis kit	...	...	1

RSG:

Pcb

PAKISTAN SEATO CHOLERA RESEARCH LABORATORY

First Meeting Of The

DIRECTING COUNCIL

Dacca, East Pakistan
February 1962

DC 1/8
February 25, 1962.

SCIENTIFIC PROGRAM OF THE PAKISTAN SEATO-CHOLERA RESEARCH LABORATORY.

The broad outline of the scientific program of the CRL, as established in the pertinent agreements (Annexes IV & V, DC 1/1), has been set forth in Document DC 1/4. The present document gives specific plans as formulated to date.

The essential facts regarding the occurrence of cholera are relatively simple. Cholera results from intestinal infection with Vibrio cholerae. It is spread through fecal contamination of food and frinking water, particularly the latter. The cholera organism does not form spores, and dies rapidly on drying, but may survive for some days, or possibly weeks, in a favourable moist environment. The organism multiplies extensively in the gastrointestinal tract, where it may persist for some weeks during convalescence. Long term chronic carriers are unknown.

Frank cholera cases are characterized by an extraordinary diarrhea which produces excessive dehydration; dehydration so severe as to cause death in many cases. Cholera, apart from dehydration, is seemingly very mild; rehydration with parenteral fluids is strikingly effective in reducing mortality to a very low figure. Rehydration, however, is of limited use in the field, because of the large amounts of sterile saline required and the necessity for careful control of the amount of saline given.

Although it is recognized that the eradication of cholera will come through preventive rather than therapeutic methods, the CRL is to open a small ward where the pathogenesis and abnormal physiology of this disease may be studied, the development of immunity and persistence of the carrier state observed, and the simplification of therapy attempted.

Some observers of outbreaks of cholera who have seen that the disease tends to affect principally and, in many cases be limited to, the lower

(more)

economic social group, have come to believe that factors other than insanitary conditions may influence individual susceptibility to a clinical attack of the disease. If nutritional status, pre-existing disease of the digestive system, or some other host factor be important in determining susceptibility, clues may be obtained by comparing cholera patients with unaffected persons from the same areas and walks of life. Such a comparison requires more laboratory tests and clinical observations than are commonly employed; the CRL ward has much more equipment and requires a considerably greater staff than are essential to a curative service. Observation on humans will be supplemented at times by studies in which laboratory animals are used.

The cholera problem will eventually be solved when effective economical methods of prevention have been developed and applied to the permanent endemic foci of infection. Epidemiologic studies of cholera, in the past, have been carried out almost entirely during epidemics. But a proper understanding of the mechanism by which cholera persists year after year in the delta areas of the Ganges and Brahmaputra Rivers can be had only after the endemic foci of infection have been demarcated and the mechanism by which V. cholerae survives, during the interepidemic period, has been determined.

Bacteriologic confimation of the diagnosis of cholera on a province-wide basis has become possible through the development, at the CRL, of new media for the cultivation of V. cholerae from body fluids, domestic water supplies and foods. (DC 1/6). The CRL in collaboration with the Health Services of the Government of East Pakistan proposes to utilize these media in the development of a province-wide program for the routine, systematic, bacteriologic diagnosis of cholera in asymptomatic carriers, in sporadic cases, in small outbreaks and in epidemics on a year round basis in order to demarcate endemic foci within the endemic area, to observe the routes of epidemic spread, and to identify areas which are most suitable for a variety of special investigations. Material for diagnosis will be collected routinely by the health officers from outbreaks which come to their attention. Beyond the health officer, at the village or school district level, the CRL will have local representatives to forward diagnostic material systematically by mail whenever cases of severe diarrhea occur in their respective villages or districts.

The CRL cannot undertake the diagnosis of all cholera cases in East Pakistan nor does it desire to do so. In studying methods of cholera prevention, determination of the number of cases has secondary importance to that of outlining the temporal and geographical distribution of the disease. As it becomes possible to follow the occurrence of cholera through bacteriologic diagnosis of material collected and processed in a routine systematic way, studies will be planned to determine the influence of the mass cholera vaccination program, and of the programs for the installation

(more)

of tube wells and sanitary latrines.

Until the bacteriologic diagnostic service of the CRL has become well established, routine cholera mortality and morbidity statistics of the Government of East Pakistan, now under study, will be utilized to the maximum possible extent for selecting the areas most suitable for programs planned by the CRL.

The importance of water as a vehicle for infection was demonstrated by Snow in 1849, but the specific way in which the water supplies of endemic areas contribute to the permanency of endemicity has never been identified. Studies recently conducted in Dacca revealed that the pH in water in tanks increased during the course of bright sunny days from neutral to a strongly alkaline reaction (DC 1/14). It has been suggested that this favors survival of the V. cholerae through the inhibition or destruction of other competing organisms which cannot withstand as strongly alkaline environments as can the cholera vibrios. The CRL possesses facilities and materials for conducting chemical and bacteriological examinations on sources of water used in East Pakistan for drinking, for personal and for domestic purposes. Water used by cholera infected and controlled households for drinking and domestic purposes will be examined routinely as a part of investigation of cholera outbreaks.

Special year round studies will be undertaken to determine the possible relationship of the tank to the persistence of endemic cholera. The study of survival of the cholera vibrio under simulated natural conditions of the tank will also be explored at the CRL. This program will latter be expanded to consider the influence of other components of the environment; e.g. soil, on the survival of pathogenic vibrios.

Studies particularly concerned with immunity and differences in exposure to infection will be conducted to determine the characteristics of individuals who suffered an attack of cholera and which distinguish them from others, who escaped infection or become asymptomatic carriers. This will be included in the epidemiological investigations of outbreaks of the disease.

Evaluation of methods for the prevention of cholera will be undertaken and will include special studies of immunity, immunization with vaccines containing killed vibrio cholera organisms and the general improvement of sanitation through the installation of tube wells for a safe water supply and of bored hole latrines for sanitary sewage disposal.

Studies of immunity and the antibody response of indigenous persons following immunization can be initiated with the least amount of delay, particularly in military recruits and prisoners. Both of these groups are subject to discipline which simplifies the collection of serum specimens. The CRL is not at the present prepared to perform seriologic examinations

(more)

but will submit these specimens to other laboratories for study.

No controlled field trials have yet been conducted to demonstrate the efficacy of any vaccines which are now employed for the prevention of cholera. The CRL will be developing plans for the controlled field trial of several vaccines. Two of those recently have been found to vary widely in their ability to prevent death of mice inoculated intraperitoneally with V. cholerae. This observation cannot be assumed to have any relationship to the value of the vaccines for man until further evidence has accumulated during the course of controlled vaccine trials in human populations. Other vaccines being considered for study include the vaccine produced at the Institute of Public Health of East Pakistan and a new vaccine which the CRL has been requested to test by the Buearu of Laboratories of the Government of Pakistan.

The Public Health Engineering Department of the Government of East Pakistan has, as one of its goal during the Second Five Year Plan, the installation of one tube well for every four hundred people in the province. The importance of the tube well program as a measure for controlling cholera arises directly because contaminated water is an important vehicle of infection and indirectly as a requirement for maintaining a high standard of personal hygiene to prevent transmission through contact. Whether or not the ratio of wells to population which is present goal will prove adequate for interrupting transmission of cholera remains to be determined. The CRL proposes in collaboration with the Public Health Engineering Department to study the use of tube well in the control of cholera. Specific points of interest concerned the ratio of wells to population which will provide sufficient readily available potable water for personal and household uses. Since cholera is unevenly throughout the province it would appear that tube wells should be concentrated in some areas, particularly those where the disease is endemic. Determination of the needs in this regard must await more precise demarcation of such endemic centers. Other points to be considered will be the most suitable location of tube wells within the villages and factors which govern the utilization by the people of contaminated water rather than potable tube well water.

As another means for improving the general standard of sanitation the program for the installation of bored hole latrines has been initiated by the government. The program has made little progress primarily because the bored hole latrine has not been accepted by the people. The CRL is interested in undertaking only a pilot study of methods for successfully introducing this sanitary measure in a selected area.

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PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

First Meeting Of The

DIRECTING COUNCIL

Dacca, East Pakistan
February 1962

DC 1/9
February 26, 1962.

SCALES OF PAY AND ALLOWANCES.

The Pakistan-SEATO Cholera Research Laboratory operating as an autonomous agency cannot offer the same permanency of employment nor certain benefits such as housing which are available to government employees.

In accord with paragraph 2 of Article 'C' of the Revised Agreement of December the 30th, 1961 (DC 1/1, Annex IV) which provides "as authorized in this Agreement or as additionally authorized by the Directing Council, the Director may ..... determine salaries and allowances and in accord with the provision of Paragraph 5 of Article 'F' of the same Agreement which provides that " pay scales for non-governmental contract employees of the CRL should be comparable to those for the same personnel in commerce, in the AID Mission in Pakistan and in other autonomous services, ..." A tentative scale of salaries and allowances has been prepared. This schedule for salaries and allowances are shown in Annexes I & II of this document. These schedules have been prepared after exhausted study of the conditions of employment of government, AID, Commerce, United Nations and Autonomous Government services.

The classification of positions by job description will determine the grade of each category of employee.

The Directing Council may wish to take note of these schedules in studying the budget document (DC 1/11) and as background for future financial planning.

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SCHEDULE OF ALLOWANCES FOR STAFF MEMBERS OF THE PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY..

Base Pay Per Month in Rupees.	DEARNESS ALLOWANCE		
	Amount as per cent of base pay	Minimum	Maximum
Less than Rs. 100	17½%	30	-
Rs. 100 - 249	17½%	30	-
Rs. 250 - 749	17½%	-	85
Rs. 750 - 2000	10%	100	150

SCHEDULE OF HOUSING ALLOWANCES FOR STAFF MEMBERS OF THE PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY.

Base Pay Per Month in Rupees	HOUSING ALLOWANCE		
	Amount as per cent of base pay	Minimum	Maximum.
Less than Rs. 100	25%	10	-
Rs. 100 - 249	20%	-	-
Rs. 250 - 1249	15%	-	-
Rs 1250 or more	10%	-	-

JLS:Pcb.

SCHEDULE OF GRADES, PAY AND ALLOWANCES PER MONTH FOR STAFF OF THE PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

CRL-1 Salary and allowances according to terms of contract.

		Start	1	2	3	4	5
CRL-2	Base Pay:	1500.00	1575.00	1650.00	1725.00	1800.00	1875.00
	Dearness:	150.00	150.00	150.00	150.00	150.00	150.00
	Housing :	150.00	157.50	165.00	172.50	180.00	187.50
	Total :	1800.00	1882.50	1965.00	2047.50	2130.00	2212.50
CRL-3	Base Pay:	1100.00	1175.00	1250.00	1325.00	1400.00	1475.00
	Dearness:	110.00	117.50	125.00	132.50	140.00	147.50
	Housing :	165.00	176.25	125.00	132.50	140.00	147.50
	Total :	1375.00	1468.75	1500.00	1590.00	1680.00	1770.00
CRL-4	Base Pay:	800.00	850.00	900.00	950.00	1000.00	1050.00
	Dearness:	100.00	100.00	100.00	100.00	100.00	105.00
	Housing :	120.00	127.50	135.00	142.50	150.00	105.00
	Total :	1020.00	1077.50	1135.00	1192.50	1250.00	1260.00
CRL-5	Base Pay:	740.00	780.00	820.00	860.00	900.00	940.00
	Dearness:	85.00	100.00	100.00	100.00	100.00	100.00
	Housing :	111.00	117.00	123.00	129.00	135.00	141.00
	Total :	936.00	997.00	1043.00	1089.00	1135.00	1181.00
CRL-6	Base Pay:	625.00	660.00	695.00	730.00	765.00	800.00
	Dearness:	85.00	85.00	85.00	85.00	100.00	100.00
	Housing :	93.75	99.00	104.25	109.50	114.75	120.00
	Total :	803.75	844.00	884.25	924.50	979.75	1020.00

(more)

CRL-7	Base Pay:	535.00	570.00	605.00	640.00	675.00	710.00
	Dearness:	85.00	85.00	85.00	85.00	85.00	85.00
	Housing :	80.25	85.50	90.75	96.00	101.25	106.50
	Total :	700.25	740.50	780.75	821.00	861.25	901.50
CRL-8	Base Pay:	400.00	430.00	460.00	490.00	520.00	550.00
	Dearness:	70.00	75.25	80.50	85.75	91.00	85.00
	Housing :	60.00	64.50	69.00	73.50	78.00	82.50
	Total :	530.00	569.75	609.50	649.25	689.00	717.50
CRL-9	Base Pay:	325.00	350.00	375.00	400.00	425.00	450.00
	Dearness:	56.87	61.25	65.62	70.00	74.37	78.75
	Housing :	48.75	52.50	56.25	60.00	63.75	67.50
	Total :	430.62	463.75	496.87	530.00	563.12	596.25
CRL-10	Base Pay:	300.00	320.00	340.00	360.00	380.00	400.00
	Dearness:	52.50	56.00	59.50	63.00	66.50	70.00
	Housing :	45.00	48.00	51.00	54.00	57.00	60.00
	Total :	397.50	424.00	450.50	477.00	503.50	530.00
CRL-11	Base Pay:	275.00	295.00	315.00	335.00	355.00	375.00
	Dearness:	48.12	51.62	55.12	58.62	62.12	65.12
	Housing :	41.25	44.25	47.25	50.25	53.25	56.25
	Total :	364.37	390.87	417.37	443.87	470.37	496.87
CRL-12	Base Pay:	220.00	235.00	250.00	265.00	280.00	295.00
	Dearness:	38.50	41.12	43.75	46.37	49.00	51.62
	Housing :	44.00	47.00	37.50	39.75	42.00	44.25
	Total :	302.50	323.12	331.25	351.12	371.00	390.87

(more)

CRL-13 Base Pay:	150.00	160.00	170.00	180.00	190.00	200.00
Dearness:	30.00	30.00	29.75	31.50	33.25	35.00
Housing :	30.00	32.00	34.00	36.00	38.00	40.00
Total :	210.00	222.00	233.75	247.50	261.25	275.00
CRL-14 Base Pay:	100.00	110.00	120.00	130.00	140.00	150.00
Dearness:	30.00	30.00	30.00	30.00	30.00	30.00
Housing :	20.00	22.00	24.00	26.00	28.00	30.00
Total :	150.00	162.00	174.00	186.00	198.00	210.00
CRL-15 Base Pay:	80.00	85.00	90.00	95.00	100.00	
Dearness:	30.00	30.00	30.00	30.00	30.00	
Housing :	20.00	21.25	22.50	23.75	20.00	
Total :	130.00	136.25	142.50	148.75	150.00	
CRL-16 Base Pay:	50.00	55.00	60.00	65.00	70.00	75.00
Dearness:	30.00	30.00	30.00	30.00	30.00	30.00
Housing :	12.50	13.75	15.00	16.25	17.50	18.75
Total :	92.50	98.75	105.00	111.25	117.50	123.75
CRL-17	Contract employees in field. Schedules to be determined.					

JLS:Pcb

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY
First Meeting Of The
DIRECTING COUNCIL

Dacca, East Pakistan
February 1962

DC 1/10
February 24, 1962

REPORT OF FINANCIAL OPERATIONS

Forwarded herewith is the report of financial operations for the CRL since its inception until December 31, 1961. The obligations and expenditures reflected in the tables were incurred under the fiscal controls of the government agency which provided the funds.

I - AID Trust Fund (Rupees).

This fund is limited to expenditures within Pakistan and was used for supplies, equipment and salaries. It was made available for the recurring expenses of the CRL from July 28, 1961 until December 31, 1961. Salaries were charged to this fund since September only, replacing support under the Dollar contingency fund established by the NIH. The table of expenditures from this fund follows. In addition, approximately Rs 35,000 more will be spent from this fund to liquidate obligations incurred during 1961.

Item	Admin.	Bact.	Epid.	Water	Clinical	Ward	Other Lab.Exp.	Total
Salaries	11,680	3,355	3,222	7,770	-	-	-	26,027
Equipment	17,388	-	-	-	1,923	7,882	1,375	28,568
Furniture	2,561	666	2,698	668	666	-	-	7,259
Travel	-	260	-	99	-	-	-	359
Supplies	1,521	25	-	43	148	-	13	1,750
Freight	-	-	-	-	-	-	4,265	4,265
Communication	262	-	-	-	-	-	-	262
Printing	252	-	-	-	-	-	-	252
Repair	120	-	-	-	-	-	440	560
Animal Food	-	-	-	-	-	-	101	101
Stationery	2,065	-	-	-	-	-	-	2,065
Miscellaneous	51	3,164	-	729	3,293	2,759	2,870	12,866
Grand Total:	35,900	7,470	5,920	9,309	6,030	10,641	9,064	84,334

The Trust Fund also provides continuing support for the administrative assistance offered by AID to the CRL pursuant to agreement. This support will continue but its cost is not reflected in these documents.

II - SEATO-NIH Cholera Research Fund (Dollars).

This fund was established by the SEATO-United States of America agreement of May 29, 1959, "To finance a Cholera Research program to be carried out by the National Institutes of Health, Department of Health, Education and Welfare through American, Asian and other appropriate institutions and bodies." Funds were provided from the President's fund for Asian Economic Development, allocated by the International Cooperation Administration (now Agency for International Development) to the National Institutes of Health by agreement of July 27, 1959, between the ICA and Department of Health Education and Welfare. The allocation of $ 227,500, originally provided for the Pakistan-SEATO Cholera Research Laboratory in the Pakistan - U. S. Agreement of October 14, 1960, has been increased to $ 362,000 by subsequent contributions becoming available in fiscal year 1962. This money is not subject to lapse. The use of these funds is broadly stated in the Revised Agreement of December 30, 1961, between ICA and the Government of Pakistan, as follows: ".....for the purchase of supplies and equipment to be imported and for the payment of such commitments of the program as cannot be paid in local currencies." The NIH has provided the following summary budget and expenditure table:

Contd...

	Proposed Allocation 1/1/62 - 6/30/63	Obligated as of 12/31/61	Balance
Laboratory supplies	$ 90,000	$ 28,544	$ 61,446
Equipment (Laboratory, Automotive, Office)	$ 78,000	$ 48,188	$ 29,812
Transportation	$ 37,000	$ 17,369	$ 19,631
Personnel	$ 102,000	$ 64,392	$ 37,608
Travel & per diem of Senior Consultants (Dacca to US and return)	$ 10,000	-	$ 10,000
Travel & per diem of special Consultants and visiting investigators to Dacca.	$ 40,000	$ 8,833	$ 31,167
Miscellaneous (Printing, communications, etc.)	$ 5,000	$ 118	$ 4,882
	$ 362,000	$ 167,454	$ 194,546

The table reflects but does not indentify a $ 2,000 contingency fund which was created to meet emergency expenditures which arise locally.

III - Government of Pakistan Contributions for Capital Development.

Rs 320,000 were reserved by the Government of Pakistan to be administered through the Institute of Public Health for capital improvements to the building occupied by the CRL. The amount was reserved for the period July 1, 1960 to June 30, 1961. The Government has reported expenditures from this amount as follows:

contd...

	Total Sanctioned Expenditure For 1960 - 61
Furniture	30,624.00
Installation of Power wiring	169,142.00
Installation of Electric Lights for 20-bed hospital	37,637.00
Plumbing Works	19,359.00
Addition and alteration to lab.	33,841.00
Addition and alteration to ward	19,110.00
TOTAL:	309,713.00

Total Provision:		320,000.00
Expenditure	:	309,713.00
Balance	:	10,287.00

IV - Government of Pakistan contribution to the Basic operations of the CRL.

Rs 85,000 were allocated by the Government of Pakistan for the period July 1961 to December 31, 1961, to be administered by the Government of East Pakistan through the Institute of Public Health and to be credited to the Government's contribution of Rs 210,000 to the General Operating Fund. Little of this fund was used since it was subject to government regulations which are difficult to apply to the CRL. Following is the Government's reported expenditures from this fund.

contd...

Item	Allotment	Expenditure	Balance
Pay of officers	15,000	3,943.56	11,056.44
Pay of establishment	20,000	3,326.59	16,673.41
Allowances and Honoraria (including travel)	15,000	4,107.27	10,892.73
Patient Diet	11,000	-	11,000.00
Medical and Surgical supplies	10,000	-	10,000.00
Car petrol, oil and maintenance	5,000	-	5,000.00
Rent and Taxes 1/	6,000	-	6,000.00
Other Contingencies	3,000	1,268.88	1,731.12
TOTAL:	85,000	12,646.30	72,353.70

1/ Includes housing for officers and taxes on the CRL Building. However, the latter has been paid by the Institute of Public Health from other funds.

V - United Kingdom Contribution (in Kind).

In Fiscal Year 1961, the Government of the United Kingdom offered equipment up to a cost of £ 10,000. The CRL's choice of equipment was communicated to the U. K. and some of it is now arriving. We do not know how much of this equipment was actually purchased nor at what cost.

VI - Other Contributions (in Kind)

Equipment and supplies, such as the trailer and two mobile generators have been contributed by various agencies of the United States Government. The total cost of these items is not known.

VII - U. S. Public Law 480 contributions (Rupees).

By agreement between the CRL and the National Institutes of Health, a fund of U.S.-owned Rs 1,700,000 became available for the period 1/1/62 -

12/31/63. Of this amount Rs 743,755 has been received for the period 1/1/62 - 12/31/62. Rs 956,245 are to be allocated for the period 1/1/63 - 12/31/63.

A. General Operating Fund.

Out of the total allocation for each year of the agreement Rs 210,000 is reserved for the U.S. Contribution to the General Operating Fund of the CRL.

B. The balance of these funds is to be intregrated with funds of other sources and used to pursue broad lines of investigation.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY
First Meeting Of The
DIRECTING COUNCIL

Dacca, East Pakistan
February 1962

DC 1/11
February 25, 1962

BUDGET OF THE PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

PROPOSAL FOR JAN. - JUNE 1962, AND FISCAL YEAR 1963

Introductory Statement

Provisions for the financing of the Pakistan-SEATO Cholera Research Laboratory during the first 18 months of operation under the Revised Agreement of December 30, 1961, are made in the Agreement itself (DC 1/1, Annex 4). Funds are divided into several categories, with differing purposes, and in various currencies. Those accounts which are active at the present time, and for which budgets can be prepared, are as follows:

I - The CRL General Operating Fund (cf. Section D, paragraph 1.b., and Section E, paragraph 2.).

II - The CRL Capital Reserve Fund (cf. Section D, paragraph 1.e. and Section E, paragraph 3.).

Following is a brief statement of construction requirements for the CRL, with rough cost estimates based upon consultation with an experienced government of Pakistan architect but not based upon actual engineers' estimates:

Stairway at east end of the laboratory wing	Rs 20,000
Service building to be built to the east of the laboratory (cf. DC 1/7), to house kitchen, laundry, maintenance and utilities. Approximately 4000 square feet of floor space, at Rs 30 per square foot.	Rs 120,000
Connecting corridor from CRL to service building. Approximately 1000 square feet, at Rs 15 per square foot.	Rs 15,000
Reserve	Rs 37,000
TOTAL:	Rs 192,000

III - Additional unds received from the N.I.H. under the Research Agreement of January 25, 1962. (cf. Section D., paragraph 1.c.).

The budget plan for the expenditure of these funds is set forth in the Annex to the Agreement, which has been presented to the Directing Council in DC 1/1, Annex V.

IV - The SEATO-NIH Cholera Research Fund (cf. Section D, Paragraph 1.a.).

This is a U.S. Dollar Fund, administered by N.I.H., which has obligations outside of the Pakistan-SEATO Cholera Research Laboratory. Both the budget plan and the expenditures incurred against this plan are set forth in the Report of Financial Operations which is presented to the Directing Council in DC 1/10.

The outstanding needs of the CRL, which have not been met under the current financial provisions, center on skills and materials which must be imported into Pakistan. The increased provisions for U.S. dollars in the SEATO-NIH Fund will do much to meet these requirements, but the great length of the supply line from America will continue to remain a problem.

At present, the CRL is without the services of a qualified, full-time bacteriologist. Such scientists are in short supply in Pakistan; to recruit a research bacteriologist of high caliber would require that the CRL compete strenuously with other organizations which are themselves of great importance in the development of the country. It would seem logical, therefore, for an international organization like the CRL to attempt to secure the services of an expert from abroad. Likewise, the need for a water biologist is acute. This man should have the research background necessary to supervise the correlation of the analytical and bacteriological work on water presently being carried out with the developing studies of the epidemiology of cholera.

Finally, it may prove desirable to engage a highly skilled technician to supervise maintenance, repair, and development of scientific instruments. If a suitable man cannot be recruited within Pakistan at reasonable cost, a foreign expert will be required.

There will necessarily be a continuing need for the importation of laboratory supplies, apparatus, and equipment to maintain and expand the scope of laboratory research carried out by the CRL. Instruments, spare parts, glassware, and reagent grade chemicals must all be purchased abroad. These items, in particular, should be procured from sources as close to East Pakistan as possible, in order to reduce the waiting time between the placing of an order and its fulfillment. Foreign exchange will also be required for the purchase of equipment needed to develop the facilities of the CRL, for vehicles, possibly including water transport, and for the library. The needs for an ambulance, an increased number of books and journals, a steam boiler and hot water system, a voltage stabilizing system, a water purifying apparatus, and for a machine shop for maintenance work are already apparent.

The following budget table summarizes the plan for the expenditure of local currency which has been provided for the use of the CRL for fiscal year 1962 and 1963. Only those funds which are under the control of the Director, CRL, are reflected here, although the status of other funds is represented in the financial report, DC 1/10.

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CRL SUMMARY BUDGET

Fiscal Year 1962 (1/1/62 - 30/6/62)
Fiscal Year 1963 (1/7/62 - 30/6/63)

	Administrative		Clinical Research		Epidemiology		Bacteriology		Water Analysis		Total	
	1961-62	1962-63	1961-62	1962-63	1961-62	1962-63	1961-62	1962-63	1961-62	1962-63	1961-62	1962-63
Total Number of Posts	29	29	39	39	28	69	16	16	15	15	126	168
Total Number of persons employed as of 28/2/62	20	-	4	-	4	-	5	-	6	-	40	-
Total number of vacancies to be filled	9	9	35	35	24	65	11	11	9	9	86	128
Salaries of full time personnel	35,593	85,768	28,753	129,800	33,690	240,240	12,120	88,160	21,810	72,192	131,966	616,160
Consultant, part-time and overtime	2,800	4,000	10,000	20,000	50,000	102,349	1,000	4,800	1,000	3,000	64,800	134,149
Provident Fund 4% of the full time personnel	-	3,430	-	5,192	-	9,610	-	3,526	-	2,888	-	24,646
Total of all personnel services	38,393	93,198	38,753	154,992	83,690	352,199	13,120	96,486	22,810	78,080	196,766	774,955
Equipment & Supplies	20,000	50,000	14,000	21,000	35,000	45,000	10,000	18,000	2,000	7,500	81,000	141,500
Travel and shipping	3,000	16,000	-	1,000	1,400	12,000	200	1,461	500	1,000	5,100	31,461
Renovation, alteration, installation and construction.	194,510	10,000	-	-	-	-	-	-	-	-	194,510	10,000
Miscellaneous	7,000	24,000	16,000	34,000	18,500	76,500	2,000	4,000	1,000	3,000	44,500	141,500
Vaccine Field Trials	-	-	-	-	-	100,000	-	-	-	-	-	100,000
GRAND TOTAL:	262,903	193,198	68,753	210,992	138,590	585,699	25,320	119,947	26,310	89,580	521,876	1,199,416

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

First Meeting Of The

DIRECTING COUNCIL

Dacca, East Pakistan
February 1962

DC 1/13
February 24, 1962

Adoption of Rules of Procedure of the Directing Council

At this initial meeting, the Members of the Council, in the absence of a previously studied document, may not desire to undertake the approval of General Rules of Procedure for future meetings of the Council. However, it may be desirable to agree on the following points, relating specifically to this meeting and to the months intervening before the next meeting of the Council:

1. A Quorum shall consist of three or four members;

2. An affirmative vote requires the concurrence of two members of a three member quorum, and of three members in a four member meeting;

3. Each Member of the Council shall continue as such until his sucessor is appointed;

4. A Chairman and a Vice-Chairman will be elected at the beginning of the meeting and continue in office until their successors are elected;

5. When indicated the Director of the CRL may poll the Members of the Council by cable or post, on matters of urgency which should not await consideration at the regular annual meeting of the Council;

6. The official Observer of any SEATO nation may be authorized by the Chairman to speak on any matter of interest to his Government.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

First Meeting Of The

DIRECTING COUNCIL

Dacca, East Pakistan
February 1962

DC 1/14
February 26, 1962.

REMARKS OF THE DIRECTOR OF THE CRL

The marble tablet at the entrance of the Pakistan-SEATO Cholera Research Laboratory commemorates its dedication on December 5th, 1960. Those present at the dedication will remember that the Bacteriological Laboratory was already working.

Those who had visions of a great immediate flowering of scientific work during the past year have been disappointed but in the long range perspective of the study and prevention of cholera, the situation is far more favourable today than could have been predicted at the time of the dedication.

This is not the place to repeat information presented in other documents of the Directing Council, but it is surely not amiss to call attention to a number of factors which together justify considerable optimism regarding the future of the Pakistan-SEATO Cholera Research Laboratory:

1) Epidemiology now has, through the development of a special medium by the Bacteriologic Section of the CRL, a tool through which the distribution of cholera may be charted routinely and systematically throughout the year in endemic areas. This is particularly important in the determination of those areas which are the permanent seed beds of cholera infection.

2) The CRL, a year ago had neither plans nor resources for the study of the relationship of water supply to cholera; today the CRL has, a rather complete water laboratory which needs only a qualified Water Biologist to go forward with studies to determine why the permanent seed beds of cholera in the world are in the delta areas along the shores of the Bay of Bengal.

3) The widespread penetration of cholera into the Western Pacific in 1961 has been most timely in emphasizing the continuing importance

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of cholera as an international health problem. Just as the invasion of Thailand by cholera in 1958 - 1959 stimulated the creation of the CRL, so has the invasion of the Western Pacific forced the recogni - tion of the need for a cholera study center, with a broad program covering all aspects of the disease, its prevention and eradication.

4) The 1962 visit of Dr. Joseph Smadel, the Chairman of the NIH Cholera Advisory Committee with three Committee Members and two Consultants, has resulted in the acceptance of much broader plans for the program of the CRL. The Committee has decided that the 1961 experience with cholera in the Western Pacific "emphasizes the need for the intensi- fication of work on all aspects of this disease by individual scientists and by national and international groups. Furthermore, the rolling front of cholera in the Western Pacific demands that the CRL assume some of the obligations implied under its SEATO banner."

The Committee commented on the long range objective that should be brought to the attention of this Directing Council, the staff of the labora- tory and the supporting groups and expressed the hope that its comments might become incorporated into the philosophy of the CRL. These comments are:

"1. It is the opinion of the Committee that the problem of cholera is of such broad significance to world health that any activity short of one which brings the techniques of science to bear directly and importantly on the many problems of the disease is shortsighted and inadequate.

"2. The CRL has already established itself as a key factor in the apparatus that will be required to eradicate the disease. Support for the CRL is imperative in obtaining funds, physical facilities, and the high level scientific staff it requires to contribute its share to the accomplishment of the enormous tasks ahead.

"3. Consequently, it is recommended that the staff of the CRL, continue their planning with less regard to the funds which have been available up to the present than to the importance of the task they address themselves to."

In considering the significance of this statement, it must be remembered that Dr. Smadel and the NIH Cholera Advisory Committee, have been largely responsible for planning the USA participation in the CRL.

5) Fortunately, the legal framework in which the Pakistan-SEATO Cholera Research Laboratory functions has been revised in such a way that the

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CRL can readily assume and discharge the responsibilities of a regional Center for all phases of the study and prevention of cholera in collaboration with other institutions and with governments.

The Original Agreement of October 14, 1960 (DC 1/1, Annex II) creating the CRL was cast in the mould of the bilateral aid agreement of limited scope and duration. The Revised Agreement of December 30, 1961 (DC 1/1 Annex IV) makes possible a broad international program for the study and prevention of cholera, through the CRL as an autonomous agency in which interested countries may participate both financially and in the determination of policy and program. This autonomous agency can readily become the mechanism for international assistance all to countries with cholera or threatened by cholera. As an autonomous agency the Pakistan-SEATO Cholera Research Laboratory can receive grants and operate freely so long as it maintains the confidence of contributing nations and organizations. The prototype of the CRL, the Institute of Nutrition of Central America and Panama (INCAP) has maintained the confidence of grantors and contributing organizations and has made scientific and public health contributions in tropical nutrition many times greater than could have been done with its basic budget derived from member States.

6) The immediate basic financial needs of the CRL for the remainder of Fiscal 1962 and for Fiscal 1963 have been provided for through the provisions of the Revised Agreement (DC 1/1, Annex IV) through the Grant Agreement between the NIH and the CRL (DC 1/1, Annex V) and through a recent addition through AID, of $150000 to the SEATO Cholera Research Fund.

The First Meeting of the Directing Council of the CRL is not, as many first meetings are, preliminary to the creation of the corresponding agency. The CRL exists legally, physically and financially, with money in the bank and provision for basic financial needs guaranteed to June 30, 1963. The Directing Council then does not face many of the responsibilities inherent in Directing Councils, since the Revised Agreement of December 30, 1961 (DC 1/1, Annex IV) and the NIH/CRL Grant Agreement of January 25, 1962 (DC 1/1, Annex V) together settle many immediate problems.

It has been possible to call this meeting without the previous distribution of the draft agenda and pertinent documents, since there are no serious matters requiring decision at this time; rather should this meeting be considered an informational and organizational one at which the Members of the Council will come to know the CRL, and its special autonomous status, and make provision for the fundamental operation of the CRL until the next meeting at which budget and program decisions will be necessary.