

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

7TH MEETING OF THE DIRECTING COUNCIL

JANUARY 17-18, 1968.

Dacca, East Pakistan.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

MEMBERS OF DIRECTING COUNCIL

Chairman:

Colonel S. A. Mallick
Director of Health Services,
Government of East Pakistan,
Dacca.

Prof. Robert Cruickshank
Department of Social &
Preventive Medicine,
Mona, Kingston,
Jamaica, W.I.
West Indies.

Vice-Chairman:

Dr. Willard Boynton
Senior Public Health Officer
USAID/Pakistan,
Lahore,
West Pakistan.

Dr. John R. Seal
Chairman, NIH Cholera
Advisory Committee, NIAID,
National Institutes of Health,
Bethesda, Maryland, U.S.A.

Mr. David A. Wraight
Deputy Secretary General,
SEATO Secretariate,
Bangkok, Thailand.

V I S I T O R S

Dr. Robert Armstrong
Epidemiology Programme,
NCDC, Atlanta, Georgia,
U.S.A.

Dr. K. P. Carpenter
Dysentery Reference Lab.
Central Public Health Lab.
London, England.

Dr. Eugene J. Gangarosa
Epidemiology Programme,
NCDC, Atlanta, Georgia,
U.S.A.

Mr. Walter Magruder
Executive Officer, NIAID,
National Institutes of Health,
Bethesda, Maryland,
U.S.A.

Dr. William J. Martin
Asst. Chief of the
Enteric Bacteriology Unit,
Bacteriology Programme,
NCDC, Atlanta, Georgia,
U.S.A.

Dr. Thomas G. Mitchell
US Naval Hospital,
Bethesda, Maryland,
U.S.A.

SCIENTIFIC AND PROFESSIONAL STAFF

- | | |
|---------------------------|--------------------|
| 1. Dr. Robert A. Phillips | Director. |
| 2. Dr. Kendrick W. Hare | Deputy Director. |
| 3. Mr. Patrick G. Talmon | Executive Officer. |

Section Chiefs

- | | |
|-------------------------|---|
| 1. Dr. James O. Taylor | Chief, Clinical Investigation Section. |
| 2. Dr. Wiley H. Mosley | Chief, Epidemiology Section. |
| 3. Mr. Mark P. Tucker | Chief, Maintenance Section. |
| 4. Dr. K.M.S. Aziz | Chief, Animal Resources Section & Guest Investigator. |
| 5. Mr. Md. Imdadul Huq | Chief, Bacteriology Section. |
| 6. Mr. Syed Zafar Ahmed | Chief, Chemistry Section. |
| 7. Mr. Nuran Nabi | Chief, Administrative Section |
| 8. Miss D. G. Torrance | Hospital Supervisor, CRL Ward. |

Guest Investigator

- | | |
|---------------------|---------------------|
| 1. Dr. M. M. Rahman | Guest Investigator. |
|---------------------|---------------------|

Professional Staff

- | | |
|---------------------------|--|
| 1. Dr. W. M. McCormack | Epidemiologist. |
| 2. Dr. Albert R. Martin | Epidemiologist. |
| 3. Dr. Robert S. Northrup | Research Physician. |
| 4. Dr. Joseph L. Kinzie | Research Physician. |
| 5. Dr.(Mrs.) Ruth S. Hare | Experimental Pharmacologist. |
| 6. Dr. David R. Nalin | Research Physician. |
| 7. Dr. Richard A. Cash | Research Physician. |
| 8. Dr. Moslemuddin Khan | Deputy Section Chief,
Epidemiology Section. |

(more)

Professional Staff (Cont'd)

9.	Mr. A.K.M. Mohsin	Research Associate, Animal Resources Section.
10.	Dr. Ansaruddin Ahmed	Research Associate, Epidemiology Section.
11.	Dr. A. K. Bhattacharjee.	Research Associate, Epidemiology Section.
12.	Mr. K.M.A. Aziz	Research Associate, Epidemiology Section.
13.	Dr.Kh. Abdullah Al-Mahmud	Research Veterinarian, Epidemiology Section.
14.	Dr. Md. Rafiqul Islam	Chief Resident, Clinical Investigation Section.
15.	Dr. A. Majid Mollah	Physician, Clinical Investigation Section.
16.	Dr. Kh. M. M. Toaha	" "
17.	Dr. Md. Zahedul Huq	" "
18.	Dr. Paul S. K. Saha	" "
19.	Dr. Golam Rahman Shaikh	" "
20.	Dr. Waliur Rahman	" "
21.	Dr.(Miss) Lutfa Khandakar	" "
22.	Dr. S. A. Wahid	" "
23.	Dr. R. K. Barui	Physician, Epidemiology Section.
24.	Dr. Moslehuddin Khondakar	" "
25.	Dr. A.S.M. Mizanur Rahman	" "
26.	Dr.(Mrs.) Shamsa Ahmed	Physician, Epidemiology Section.
27.	Dr. Ahmed Rashid	Veterinarian.
28.	Dr. S.Z. Anwarul Quader.	"

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

A G E N D A

FOR THE SEVENTH MEETING OF THE DIRECTING COUNCIL

JANUARY 17-18, 1968.

1. Adoption of the Proposed Agenda. DC 7/1
2. Confirmation of the Minutes of the Sixth Meeting of the Directing Council held on March 8-9, 1967. DC 7/2
3. Report of the Technical Committee. DC 7/3
 - a) Epidemiology
 - b) Clinical Investigation
4. Director's Administrative Report. DC 7/4
5. Director's Financial Report. DC 7/5
6. Review of the Auditor's Report and the Director's Comments. DC 7/6
7. Presentation of Appendices to Personnel Regulations. DC 7/7
8. Review of PSCRL Budget Plan for 1968-69 and determination of the level of the General Operating Fund contribution. DC 7/8
9. Facilities Report.
 - a) General
 - b) Utilities
 - c) Bacteriology
 - d) Chemistry
 - e) Animal Resources
10. Clinical Investigation Committee.
11. Extension of PSCRL-GOP Agreement. DC 7/9
12. Other items of Business. DC 7/10
13. Election of Chairman and Vice-Chairman for the ensuing year.
14. Selection of dates for the 8th Meeting of the Directing Council.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Seventh Meeting of the

DIRECTING COUNCIL

MINUTES OF THE SIXTH MEETING OF THE DIRECTING
COUNCIL HELD ON MARCH 8-9, 1967.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY
DACCA, EAST PAKISTAN

Minutes of the 6th Meeting of the Directing Council

The sixth meeting of the Directing Council of the Pakistan-SEATO Cholera Research Laboratory was held in Dacca on 8 and 9 March, 1967.

The designated members of the Council were:

Colonel S. A. Mallick
Chairman.

Director of Health Services,
Government of East Pakistan,
Dacca.

(Representing the Government of
Pakistan).

Dr. Willard Boynton
Vice-Chairman

Senior Public Health Officer
US/AID Pakistan, Lahore.

(Representing the Government of
the U.S.A.)

Professor Robert Cruickshank

Department of Social and Preventive
Medicine, University of the
West Indies, Jamaica.

(Representing the Government of
the U.K.)

Dr. Robert S. Gordon

Clinical Director, NIAMD
National Institutes of Health,
Bethesda, Maryland, U.S.A.

(Representing the Director of the
National Institutes of Health).

Mr. David A. Wraight

Deputy Secretary General
SEATO, Bangkok,
Thailand.

(Representing the Secretary-
General of SEATO).

In attendance at the meeting were:

Dr. Jean F. Rogier	Chief Public Health Advisor US/AID, Dacca.
Mr. Louis Sekutowitz	Consul General for France East Pakistan.
Dr. Robert A. Phillips	Director, Pakistan-SEATO Cholera Research Laboratory.
Dr. Kendrick W. Hare	Deputy Director, Pakistan-SEATO Cholera Research Laboratory.
Mr. Patrick G. Talmon	Executive Officer, Pakistan-SEATO Cholera Research Lab.
Section Chiefs	Pakistan-SEATO Cholera Research Lab.

The Meeting was called to order by the Chairman at 0915.

ITEM 1: ADOPTION OF THE PROPOSED AGENDA.

The proposed agenda was presented and adopted.

ITEM 2: CONFIRMATION OF THE MINUTES OF THE FIFTH MEETING OF
THE DIRECTING COUNCIL HELD ON 9-10 MARCH, 1966.

The Minutes were reviewed and approved.

At this time the Meeting adjourned and the group was conducted around the Laboratory by the Director.

ITEM 3: THE REPORT OF THE TECHNICAL COMMITTEE. DC 6/1.

The Directing Council, having considered in detail the report of the Technical Committee, adopted the report and fully endorsed its recommendations.

The Council recorded its appreciation of the efforts of the staff, particularly the Sister in charge, and nursing staff, for their outstanding efforts during the 1966 cholera epidemic in Dacca, when 2,225 patients were admitted, and over 99% were cured.

The Directing Council agreed with the recommendations of the Technical Committee that the CRL play an active role in teaching modern methods of cholera control and treatment to health personnel from other areas, and in providing expert consultation when requested. It agreed that technical personnel on short-term assignments to CRL may provide a useful service in assisting with on-going research activities while at the same time receiving valuable training and experience.

The Council endorsed the recommendation of the Technical Committee for a ten-year planned program of continued research at PSCRL. The possibility of developing a more acceptable and more effective cholera vaccine would justify such a commitment. There are, in addition, many promising avenues for research on therapy, epidemiology and other aspects.

The Directing Council took special note of the recommendations of the Technical Committee regarding the renovation and reorganization of the Bacteriology Section, increased animal facilities, and early improvements to the animal house, and endorsed these recommendations.

ITEM 4: THE DIRECTOR'S ADMINISTRATIVE REPORT. DC 6/2.

The Directing Council took particular note of the significant increase in personnel (352 at 31.1.1966 to 541 at 31.1.1967) and of the effect that the development of essential facilities as well as the increase in staff has had upon the budget.

The Council noted the critical state of the transport fleet - of the sixteen vehicles owned by the Laboratory only two have not exceeded 37,000 miles - and regarded the early replacement of the majority of the vehicles as a matter of urgency. The Council decided to seek the good offices of SEATO in an endeavor to obtain gifts of replacement vehicles, and of the Government of Pakistan in facilitating the customs clearance of vehicles and spare parts.

ITEM 5: THE DIRECTOR'S FINANCIAL REPORT. DC 6/3.

The Directing Council noted and accepted the report as submitted.

ITEM 6: REVIEW OF THE AUDITORS' REPORT WITH THE DIRECTOR'S
COMMENTS. DC 6/4.

The Directing Council noted that an investigation is being conducted into the supply of fuel, oil and grease to the hospital launch, "Joseph E. Smadel" and that a report will be furnished to US/AID and will be considered at the next meeting of the Directing Council.

In accepting the Report of the Audit, the Directing Council referred to the help of US/AID in conducting this audit which was considered essential to the correct operation of the PSCRL. It recorded its appreciation of US/AID's assistance and trusts that AID will continue to provide this support.

ITEM 7: PRESENTATION OF APPENDICES TO PERSONNEL REGULATIONS. DC 6/5

The Directing Council accepted the recommendations of job classifications and ranges of pay in all sections except those of the Administrative Section which have not had final review. The Directing Council urged the Director to provide final job classifications and ranges of pay in the Administrative Section in the early future.

ITEM 8: REVIEW OF THE PSCRL BUDGET PLAN FOR 1967-68 AND DETERMINATION
OF THE LEVEL OF THE GENERAL OPERATING FUND. DC 6/6

The Directing Council reviewed the FY68 budget proposal and noted that the increase was 20% over the revised budget for FY67. The Council concurred in the proposed budget of Rs.750,000, subject to review by the respective governments.

The Council took note of the original Agreement, by which the Governments of East Pakistan and United States contributed equally to the PSCRL operating fund. It observed that the present situation, by which all cholera suspects in the Dacca area are admitted to the wards of the laboratory, has made possible the closing of the cholera ward at Mitford Hospital, utilization of that space for other purposes and possibly in other savings to the GOEP. The Council hoped that the GOEP might therefore find it possible to make a special contribution of Rs.50,000 to be budgeted for patient care expenses at PSCRL.

In view of the general increase in the cost of goods and services and of the expanding program, it recommended that each Government contribute Rs.350,000 toward the general operating fund.

ITEM 9: UTILITY REPORT. DC 6/7

The Directing Council noted with satisfaction that additional facilities for patient care have been completed at Matlab Bazar. Added clinical facilities in Dacca, recommended by the Directing Council at its fifth meeting, and again by the Technical Committee in 1967, are being planned. The Directing Council was informed that the GOEP has long range plans for the construction of an Infectious Diseases hospital in Mohakhali that will complement the clinical facilities of the PSCRL in the care of cholera patients.

The maintenance report was noted. The Directing Council was informed that NIH plans to assign to PSCRL a competent engineer to supervise maintenance activities.

The Directing Council was informed that plans for improving the electric supply to PSCRL, recommended at its fifth meeting, are progressing. Implementation of the plans will begin when NIH and USAID have agreed on the details.

The Directing Council was pleased to note that a steam generator is now available for service to both the Institute of Public Health and PSCRL. This will facilitate the reorganization of bacteriologic facilities recommended by the Technical Committee at its sixth meeting, and result in a considerable saving in electric power requirements.

ITEM 10: CLINICAL INVESTIGATION COMMITTEE. DC 6/8.

The Directing Council noted the formation of a Clinical Investigation Committee recommended at its fifth meeting, and received with satisfaction the Committee's first report.

ITEM 11: EXTENSION OF US/AID-GOP AGREEMENT. DC 6/9.

The Directing Council was informed that a three-year extension of the Agreement between GOP and US/AID had been signed by US/AID and agreed to in principle by the GOP. Final action is expected in the near future. The Council reaffirmed its endorsement of the Technical Committee's recommendation that the overall program be envisaged for at least ten more years.

ITEM 12: ELECTION OF CHAIRMAN AND VICE-CHAIRMAN FOR THE ENSUING YEAR. DC 6/10.

The Directing Council unanimously re-elected Colonel S. A. Mallick, the delegate of the Government of Pakistan, to serve as Chairman, and Dr. Willard Boynton, the delegate of the U.S. Government, to serve as Vice-Chairman for an additional year.

ITEM 13: DATES FOR THE 7TH MEETING OF THE DIRECTING COUNCIL. DC 6/11.

Having endorsed the recommendations of the Technical Committee with respect to dates of future meetings, the Directing Council determined that its 7th meeting should occur on or about 15 January 1968. The exact dates will be fixed by the Chairman and the Director of PSCRL.

ITEM 14: OTHER BUSINESS. DC 6/12

1) Foreign Training of PSCRL Staff.

The Directing Council supported a recommendation by the Technical Committee and the Director of PSCRL that PSCRL funds shall not be allocated for sending staff overseas for postgraduate or technical training leading to higher degrees or diplomas since funds from other sources are available for such purposes. Financial help could, however, be available for travel costs to such staff members where necessary.

2) Secondment of Doctors and Nurses.

The Directing Council took note of the difficulties which arose in obtaining staff and recommended that the GOEP should give consideration to seconding doctors and nurses to meet the needs of the PSCRL.

3) Visiting Experts.

The Directing Council recorded its appreciation of visits from WHO experts and recommended the GOP to continue to sponsor such visits.

4) CENTO/SEATO Collaboration.

In the Summer of 1966 at a CENTO Conference held in Ankara, Brigadier M.S. Haque invited member nations to send Public Health Personnel to PSCRL for training in the management of cholera. As a result of this invitation, a CENTO sponsored program was set up whereby twenty-four Turkish and twenty-four Iranian health officials attended five-day training courses at the Laboratory in groups of approximately 12 doctors per group. Despite the extra load this has placed on the scientific staff of the Laboratory, the Director assured the Directing Council that the staff was happy to collaborate in such ventures in the future. The Council approved the continuation of such programs providing that no undue burden was placed on the Laboratory and its staff.

5) General Resolutions.

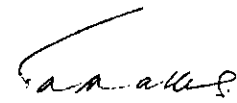
The Directing Council noted that contributions towards research by the United States were being continued at a high level and that while contributions in cash and kind were continuing from United Kingdom and Australia, it recommended that other SEATO member nations, particularly those interested in research into tropical diseases should endeavor also to contribute. It also recommended that the contribution from the United Kingdom like those from the Government of Pakistan and the United States, should be increased proportionately.

The Directing Council was informed that the GOEP had given permission for use of land for the erection of an additional wing to the Laboratory buildings. Plans and cost estimates are being prepared for submission to the appropriate authorities.

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The meeting adjourned at 1600 hrs. on 9 March, 1967.


Robert A. Phillips, M.D.
Director, PSCRL.


Colonel S. A. Mallick
Chairman.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Seventh Meeting of the
DIRECTING COUNCIL

REPORT OF THE 7TH MEETING OF THE TECHNICAL
COMMITTEE HELD ON 27-29 NOV. 1967.

7TH ANNUAL MEETING OF THE PAKISTAN SEATO
CHOLERA RESEARCH LABORATORY TECHNICAL COMMITTEE
REPORT FOR FY67

The Technical Committee met on 27, 28 and 29 November, 1967. Its review was greatly assisted by the following consultants: Dr. Alexander Langmuir, Chief of the Epidemiology Program, Communicable Disease Center, Atlanta; Dr. Graham Bull, Director of the Clinical Research Centre, Medical Research Council, London; Dr. Robert Gordon, Clinical Director, National Institute of Arthritis and Metabolic Diseases, N.I.H.; Dr. Peter Curran, Associate Professor of Physiology, Yale University School of Medicine; Dr. John Johnson and Dr. Alexander Lawton, Clinical Investigators at the National Institute of Allergy and Infectious Diseases, N.I.H.; Dr. Andrew Abraham, Research Associate, Department of Pathology, Harvard Medical School, and Dr. Jean Rogier, Chief Public Health Advisor, US/AID, East Pakistan.

The Committee wishes to express its great sense of loss on the death of Dr. Kenneth Goodner. Dr. Goodner had taken a deep interest in PSCRL from the time of the original discussion which led to its establishment, and throughout its history contributed so much to its programs, especially in bacteriology and serology, although by no means restricted to these aspects. Dr. Goodner had planned to be in Dacca for this meeting of the Technical Committee.

Although only nine months have elapsed since the last meeting of the Technical Committee, many of the more important recommendations have been put into effect already. We are particularly pleased by the great improvement in all aspects of maintenance since the arrival of Mr. Mark Tucker four months ago.

Similarly, the improvements in the Animal House have been little short of dramatic under the supervision of Dr. K.M.S. Aziz. The operations of the Animal House should be further improved when construction of a godown has been completed during the coming year which will free space in the Animal House that is being used at present for bulk storage.

Our review was made both easy and profitable by the excellent cooperation of the Director and his staff. We wish to compliment the Section Chiefs for their presentations to the Committee and for the quality of the protocols they submitted for our review.

In the previous review of February 1967 particular attention was devoted to a program of vaccine development necessary to produce an immunizing preparation of higher protective potency and more enduring effect than given by the present killed, whole bacterial cells. We concluded that to meet these requirements a program of at least ten years' duration is needed. Events since that time give no reason for modifying that projection.

In the present review we considered in detail the program of clinical investigation, its relation to the work of the other sections, its goals and its priorities.

Studies on alterations of the physiology of the gut in cholera, on the nature and mode of action of the diarrhea-producing toxin(s), and on the immunological responses are so intimately related to those on production of a better vaccine that they cannot be separated out and set in a different time frame. The Review Committee is of the opinion that further development of effective oral therapy of cholera is of high priority because of the broad effects it would have in saving lives in areas where intravenous therapy is difficult or impossible to apply.

The Review Committee is greatly impressed with the quality of the scientific work carried on in all sections of the laboratory. Morale, quite obviously, is high. Both of these considerations speak well for the high quality of leadership of Dr. Phillips and the Deputy Director, Dr. Kendrick Hare.

For the present report an evaluation has been made of the significance of the PSCRL research program to Pakistan. This has been prepared by Dr. Ali Nawab Khan, a member of the Technical Committee, and is included as Appendix 1.

ADMINISTRATION AND MAINTENANCE

As a result of reorganization and some staff changes during the past year there have been significant and welcome improvements in administration and maintenance. Nevertheless, the research program continues to grow and its legitimate demands create a need for additions of staff, space, utilities, equipment and supplies, and maintenance.

Both to develop a fully satisfactory vaccine and to carry out the physiological studies necessary to show if oral therapy is a useful possibility, it is clear that future planning of PSCRL ought to be undertaken on a basis of at least ten years. Therefore, at this stage it may be helpful to list a number of improvements to the facilities which must be made if the physical environment is to provide adequate support of the research program.

1. --Electrical Power Supply:

Required: A sub-station, overhead line, and transformers.

Reason: External power supply at present is inadequate and unreliable.

IT IS RECOMMENDED that the problem should be reviewed and the needs specified by one or more engineering consultants. The Consultations should take into account the need for the PSCRL facilities to be linked with the new arrangements being planned for the Institute of Public Health.

2. Sewage Disposal:

This needs to be up-graded as soon as possible. The importance of setting a good example in this matter will be obvious.

3. Hot Water Supply:

This is most urgently needed.

4. Bacteriology:

Required: Implementation of proposals already made for additional new autoclaves; up-grading of wash room; adequate media-making room; cold room for storage; covering-in of corridor; hot air ovens; kerosene incubators; improvements to plate-pouring room including fitting of ultraviolet light for sterilizing the room between operations.

5. Maintenance Shop:

Required: Expenditure on purchase of heavy duty tools and machines.

6. General needs of space for staff, patients, library and offices.

Provision of a new four-storey building has already been requested.

7. Animal Resources:

Much improvement has been made in the animal house since February 1967. The demands on this facility have grown, however, and seem likely to grow even more rapidly. In particular, the new work of Dr. K.M.S. Aziz will require a

regular and adequate supply of animals.

The present building, already over-strained, needs improvements in lighting, ventilation, vermin-proofing, sterilization, arrangements for preparing animal food, and the supply of cages for animals.

CLINICAL INVESTIGATION

It is artificial to consider the activities of the Section of Clinical Investigation as though isolated from those of the rest of the organization because each section to some extent provides a background service of investigation to further the ends of the others. However, for historical reasons this separation has been made and will be preserved for the sake of continuity with previous reports.

The long term objectives of this section are as follows:

- 1.* The development of an oral regime of therapy which will be at least as effective as the present intravenous one because the latter is impracticable, on grounds of cost and for logistic reasons, in most areas where cholera is endemic or epidemic.
- 2.* The development of a form of treatment which will specifically reverse the disturbance which leads to extensive water and electrolyte loss, for in so doing most of the difficulties and much of the cost of fluid and electrolyte replacement therapy would be eliminated. This would be based on an understanding of the mode of action of cholera toxin.
3. As an extension of 2, it is possible to conceive of prophylactic measures, independent of immunization programs, which could be applied on a mass scale.

* As shown by experience with smallpox which is still endemic in Pakistan despite the availability of an effective vaccine, eradication of cholera is extremely unlikely in the foreseeable future and there will be a continuing need for mass therapy.

4. In order to further the objectives of the immunization program, the Clinical Investigation Section has itself a role in providing information on the mechanisms of immunity and the nature of cholera toxin.
5. To take advantage of the opportunities cholera provides for the study of certain aspects of gastro-intestinal and water and electrolyte physiology which are not available in other diseases and climates.

A necessary step in achieving all these objectives is the understanding of the disturbances of physiological mechanisms leading to water and electrolyte losses and of the details of the processes underlying immunity in this disease.

Progress and Future Programs:

A continuing activity has been study of the pathophysiology of cholera with special reference to the handling of water and electrolytes by the gut. Its particular immediate objective is to determine whether water and electrolyte losses result from an excessive blood-to-gut lumen flux, to a diminished lumen-to-blood flux, or to a combination of the two. The principal progress since the last report has been the perfection of a technique for determining the two fluxes in selected segments of the intestine and the demonstration of its practicability in pilot studies. It is likely that the investigation of patients with cholera by this method during the coming season will provide vital information which will determine the direction of further studies and, in particular, decide whether the absorption of sodium, or factors

affecting filtration, blood flow, or sodium secretion should be principally studied. These investigations have been given the highest priority for this section and we believe this to be correct (see protocols CI/P1,2,3.).

There is also continuing activity in determining the relation of glucose to sodium transport for this forms the principal basis for a possible oral treatment. Progress has been considerable both in the laboratory and in studies in man and it is now evident that the time is ripe for a further trial of an oral regimen which combines glucose, tetracycline and an appropriate solution of electrolytes. At the committee meeting the investigators were strongly pressed to carry this out.

Several studies have been completed and others are under way in conjunction with the Epidemiology Section to determine the mechanisms of immunity in cholera. There has in fact been a considerable expansion of the capabilities in this field and the protocols CI/P8-12 and 25 are considered to be appropriate.

Dr. K.M.S. Aziz has made substantial progress in the study of cholera toxin and it is particularly noteworthy that assays based on blueing activity alone can no longer be considered adequate because activity on the gut does not necessarily correlate with this. Assay methods for gut activity have been established and the way is now open for the application of methods of purification, concentration and analysis of the toxin. It is clear that Dr. Aziz's work deserves priority and is particularly important in that it will assist in the development of the immunization program. It is also clear that he will require further space and the assistance

of one or more chemists to carry out his program. IT IS RECOMMENDED that these be provided.

One of the particular puzzles of this disease is the fact that only a small proportion of persons exposed develops the disease and moreover that the vibrio may multiply in the gut in many, without producing symptoms. Epidemiological studies show that it is the poor in the community who are most affected and this raises the question whether nutrition is relevant. Histological studies on cholera patients and their relatives lend further support to this possibility. Protocols CI/P5,6 and 7 concern projected studies directed at this problem and they are considered appropriate.

Protocol CI/P15 is a follow up of an earlier microscope study of intestinal mucosa in cholera which has shown certain changes of separation of epithelial and sub-epithelial cells. The significance of this finding is uncertain and should be pursued.

Protocols CI/P16,17,18,20,23,24 and 26 concern a number of smaller studies, all of which are considered relevant. Most of these are to be carried out on animals to answer problems which are not appropriate for human experimentation.

In the case of CI/P26 it is desirable that the ethical aspects of the study be considered by the Clinical Investigation Committee.

Summary

Progress has been most encouraging and the proposals for ongoing work appear both realistic and desirable. However, it is also clear that the route taken towards the long term objectives of this section cannot be defined except in the short term, for the results of current work must needs modify future plans.

EPIDEMIOLOGY PROGRAM

1. Organization

The present professional staff of the Epidemiology Section under the direction of Dr. W.H. Mosley is able. It is reasonably adequate in number to conduct the present heavy program commitments including the large scale field trial of vaccines in Matlab Bazar, the development and evaluation of serological tests for diagnosis and immunity, and limited but intensive epidemiological field studies of cholera as it occurs and spreads in selected study populations.

Two medical epidemiologists from the U.S., however, complete their tours of duty in the spring and early summer of 1968, thus concentrating full responsibility for supervision and direction of the large staff on Dr. Mosley. Fortunately two well qualified replacements have been recruited. These men have been in training in the Epidemic Intelligence Service of the NCDC since July 1967 and are expected to report for duty in Dacca on or about 1 May 1968. They should be able to share substantial responsibility with Dr. Mosley by the time of the 1968-69 cholera season.

While the present program of the Epidemiology Section is quite extensive it fails in many respects to meet the broad mission of the PSCRL as specifically stated in the organizational agreements and summarized in the February 1967 Technical Committee report. For example, epidemic aid services to SEATO countries other than Pakistan have been extremely limited. Epidemiological patterns of cholera vary widely from country to country and must be investigated with care if control measures applicable to each specific

country are to be defined.

Serological surveys are now possible using the micro-vibriocidal test developed at PSCRL. These should be undertaken on a carefully selected research basis in a number of areas not only in SEATO countries but elsewhere, particularly in the Middle East.

In order to discharge the broad mission of the Section, IT IS RECOMMENDED that at least one additional epidemiologist be added to the staff. He should report for duty early in 1969 and thus provide greater strength and continuity of supervisory personnel.

2. Vaccine Field Evaluations

The major vaccine trial of the cholera season 1966-67 was carried out successfully as planned. A total population of 110,000 persons was involved including 40,000 children from 1 to 14 years of age in 3 test groups. During the first 3 months of the trial, the results were highly favorable. Two doses of a standard commercial vaccine conferred approximately 90 percent protection. During the second 3-month period however this protective effect disappeared. These findings suggest that presently available cholera vaccines confer a short immunity.

This finding, although disappointing, was not wholly unexpected because of the recognition that vibriocidal antibody titers of vaccinated persons decline sharply 2 to 3 months following inoculation. Therefore the 10 year plan for future vaccine evaluation defined in the Technical Report, February 1967, was realistic.

The vaccine program for 1967-68 is now under way, awaiting only the occurrence of cholera cases. This program will further evaluate the degree and duration of effectiveness of an annual booster injection of standard vaccine.

Intensive laboratory research directed toward the development of a more effective vaccine conferring more durable immunity is of paramount importance.

IT IS RECOMMENDED that the use of simple adjuvants such as aluminum hydroxide with monovalent whole cell vaccines be seriously considered for the next vaccine trial.

In as much as the Matlab area has now been under intensive study as a vaccine evaluation area for 4 years, it is doubtful that a new antigen can be validly employed in this population. IT IS RECOMMENDED therefore that the staff of PSCRL explore other areas that might be suitable for the next vaccine trial and submit a formal proposal.

3. Serological Studies

Extensive experience has now been accumulated to show a consistent relationship between titers of vibriocidal antibody and protection against clinical cholera. This discovery indicates that the vibriocidal antibody response may well be useful not only for conducting serological surveys of immunity in representative populations threatened by cholera, but also for screening candidate vaccines for field trial. IT IS RECOMMENDED that PSCRL plan a series of carefully selected immunity surveys in representative areas of Pakistan, other SEATO countries, the Middle East, and elsewhere as indication and opportunity arise.

4. Field Epidemiology

The intensive study of the village of Meharon, a population of approximately 1,000 persons adjoining the Matlab vaccine study area, has produced quantitative evidence to demonstrate the wide extent of inapparent cholera infection in the absence of clinical cholera. By collecting two blood specimens at a 3-month interval during the height of the cholera season, a total of at least 30 specific antibody responses was detected. During this same period, rectal swab cultures were systematically collected on all cases of diarrhea. In 5 instances Vibrio cholerae was isolated although none of the cases was sufficiently severe to warrant the diagnosis of clinical cholera.

IT IS RECOMMENDED that such studies be repeated in selected areas to measure more accurately the extent of inapparent cholera infection.

If the Meharon findings are confirmed both in other endemic and in epidemic areas, it will be evident that cholera infection is considerably more widespread than the occurrence of clinical cases has suggested in the past.

SERVICE AT PSCRL AS A PHASE IN THE
CAREER OF YOUNG U.S. INVESTIGATORS

Since its opening, an important part of the scientific and professional "muscle" of the PSCRL has been contributed by young American physicians assigned to Dacca for two years. These men have been commissioned in the U.S. Public Health Service, thus fulfilling their military service obligation while at PSCRL, and have begun their period of duty from two to four years after receiving their medical degrees. To date, five such doctors have returned to the U.S. after working at PSCRL. Of the seven presently on duty, four are due to be relieved in June 1968.

The five alumni were all members of the Clinical Investigation Section at PSCRL; the first physician associate assigned to the Epidemiology Section by NCDC arrived in Jan. 1966, and is still active. Of the five, two are presently completing residency training in internal medicine. Each of the other three has an appointment at a first-rank medical school, and two are now grantees under the U.S.-Japan Cholera Program. It is also of interest to note that only one of these five voluntarily left PSCRL at the end of his two-year period of obligated service in the U.S. Public Health Service. One was forced to leave prematurely because of ill health, but each of the other three arranged to extend his stay for an extra year. Dr. James Taylor, now head of the section on Clinical Investigation, has done likewise, and is now in his third year, and Dr. Robert Northrup will be staying for a third year in 1968-69.

The discontinuation of the International Research Career Development Program of NIH's Office of International Research threatens to reduce the availability of such physicians for PSCRL. IT IS RECOMMENDED that NIH take positive steps to replace this resource. This might be done by designating two new positions within NIAID as clinical associateships, to be filled through the associate matching program, specifically for assignment to clinical research at the PSCRL.

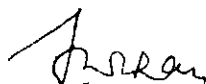
Within the past 18 months, PSCRL has invited twelve young physicians, comparable in training and experience to those who have served for two or more years, to assist in its work for shorter periods on a TDY basis. With this group might also be considered one senior medical student who was in Dacca for three months in the 1964-65 season. Among the results presented to the Technical Committee were studies to which these men had made substantial contributions, but it is as yet too early to tell whether their brief experience will have elicited in any of them a desire to make a greater investment in the PSCRL or other phases of cholera research.

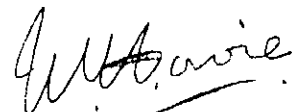
So long as they continue to receive supervision, guidance and the chance to consult from time to time with experts in their own fields of endeavor, the assignment at PSCRL offers certain unusual opportunities to these junior investigators. Having relatively neglected in recent decades, cholera as a scientific problem still offers many opportunities for significant discoveries to be made with elementary techniques. The new

physician associate can be reasonably confident that with conscientious effort he will achieve worthwhile results within two years, or less. The still relatively small size of PSCRL research staff also results in the associate's being truly the protagonist in his investigations, rather than being a highly dependent subordinate of a senior scientist, as is so often the case in major research institutions in the U.S. For properly prepared, self-reliant individuals this is an unusually favorable way to start a career in medical investigation.

SIGNED by members of the
Technical Committee:


(Dr. Colin M. MacLeod)
Chairman


(Dr. Ali Nawab Khan)


(Dr. James W. Howie)

on 1st December 1967, in Dacca, East Pakistan.

APPENDIX · I

SIGNIFICANCE OF THE PSCRL PROGRAM TO PAKISTAN

The PSCRL has made definite progress in its various activities during the year under report. A large volume of research work has been carried out to solve the problem of this puzzling disease. Our appreciation goes to SEATO for its establishment of this Laboratory not only to save and protect the people of Pakistan but also to remove the threat of the disease from other countries where it does not now exist or has ceased to exist.

Vaccine field trials are progressing satisfactorily and should be intensified to evolve an effective vaccine of durable immunity. At present, people resent taking repeated vaccinations; therefore, the development of a vaccine having a longer period of effectiveness will be highly beneficial to people in endemic areas like Pakistan and also to the traveling public from other countries.

Epidemiological studies which have been undertaken to investigate the actual source of the disease and habitat of cholera vibrios should be continued with a view to unfolding the mystery of the disease.

The noteworthy achievement of PSCRL in evolving a treatment discipline which has reduced the mortality rate of the hospital patients below 1 percent is an important discovery and has saved many Pakistani lives and will also save many more. But most of the cholera cases are treated in rural areas by village physicians

whose facilities for modern methods of treatment are non-existent. Attempts should therefore be made to develop a less costly and easy method of treatment for adoption in rural areas.

The P SCRL has been of great value to Pakistan in that besides carrying out research studies it is also giving service to the people of Pakistan. During the last cholera epidemic over 3,000 patients received treatment in its wards. The Laboratory is in a position to produce I.V. fluids which not only meet the needs of the ward patients but also sometimes satisfy the demands of the other local hospitals.

The Laboratory has earned world-wide recognition as a great center for cholera research studies and a number of physicians from CENTO countries and the World Health Organization Fellows from different countries have undertaken training at this Laboratory. A large number of Pakistani physicians and other personnel have been given the facilities and opportunity to learn techniques of research investigation. It is a matter of satisfaction that Pakistani physicians are working side by side with their American colleagues and some of the Pakistani staff have important sophisticated research jobs. It is also a matter of pride that a number of research papers here have been jointly published by the Pakistani and American co-workers.

Due to the dedicated efforts of the research workers, new means and methods have come to light in various fields. The Laboratory was particularly useful to Pakistan in that it was able to carry out rectal swab cultures of over five thousand

pilgrims to Mecca for detection of cholera vibrio carriers, during the 1966-67 cholera season. It is a matter of record that SCRL has been officially thanked by the Government of Pakistan for these services.

In the field areas where PSCRL's program is in operation, especially at Matlab Bazar, people have become health conscious and cooperative with the aims of the Laboratory's program.

Detailed demographic studies have been undertaken in this area. These have provided useful information on births, deaths and population growth rate which confirms the findings of the studies carried out previously in other areas of Pakistan.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Seventh Meeting of the
DIRECTING COUNCIL

Dacca, East Pakistan - January 17 - 18, 1968

DIRECTOR'S ADMINISTRATIVE REPORT

ADMINISTRATIVE REPORT

Fiscal Year 1967

(July 1, 1966 - June 30, 1967)

Whether or not the objectives of the research programs of this laboratory will be met on schedule will, to a considerable degree, be dependent on the quality of the administrative support available to those programs. Administrative support in this respect is broad in scope and includes consideration of staff, space, utilities, equipment and supplies and maintenance.

Personnel

As a result of the expansion of on-going research programs and the instigation of new studies during FY 67, the laboratory staff increased considerably. On July 1, 1966, the laboratory had a total staff of 430 (headquarters 227, Matlab 203) whereas on July 1, 1967, the number was 576 (headquarters 290, Matlab 286).

Please see Table A for a breakdown of staff by section. The figures for Matlab include boatmen and midwives who are hired on a temporary and seasonal basis. The increase in staff at Matlab can be explained by the decision to increase considerably the vaccine surveillance area. After the arrival of Dr. and Mrs. Hare in September, 1966, the Chemistry Section staff increased considerably as many efficient and effective methods of analyses were introduced by the Hares. Several additional staff were also taken on at headquarters by the Epidemiology Section to cope with the increased data output obtained from the extended surveillance area at Matlab Bazar.

As a result of the above mentioned increase in staff on the research side of the laboratory, a number of new positions were needed on the administrative side to deal with the increased demands from research. The staff of the Administrative Section numbered 69 on July 1, 1966 (total staff 430) whereas the figure one year later was 92 (total staff 576).

With the need to provide increased supportive services to the research sections, it became necessary to reorganize the structure of the Administrative Section to place it in a better position to serve the needs of the laboratory. Mr. Charles B. Myers, Management Analysis Officer of NIAID, NIH, was brought out to Dacca in the summer of 1966 for several months to formulate and implement the reorganization of the Administrative Section. As a result, administration was divided into several

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Specialized areas, i.e. personnel, finance, transportation, maintenance, general services and supply.

T A B L E 'A'

BREAKDOWN OF PSCRL PERSONNEL BY SECTION

	Dir. Off.	Admin.	Epid. Sec.		Clin. Inv. Section.		Bact. Sec.	Chem. Sec.	Anim. Res. Sec.	Con sul tants	Tot al.
			HQ	Matlab VTS	Res.	CRL Ward					
1.7.66											
Local	2	69	29	203	27	45	34	10	-	3	422
Foreign	2	-	2	-	3	1	-	-	-	-	8
30.6.67											
Local	2	92	37	286	33	45	32	23	*9	3	562
Foreign	4	-	4	-	3	1	1	1	-	-	14

* The Animal Resources Section was organized on 23 May, 1967, with staff transferred from Bacteriology Section.

The following PSCRL staff were on foreign training during FY 67:

T A B L E B

FOREIGN TRAINING DURING THE FISCAL YEAR 1966-67

<u>Name</u>	<u>Designation</u>	<u>Date of Returned</u>	<u>Exptd.Date of Return</u>	<u>Place of Training</u>	<u>Remarks</u>
1. Dr. Md. Rafiqul Islam	Chief Resident	24.9.67		Institute of Clinical Science, Queens Univ. of Belfast, N.Ireland, U.K.	
2. Dr.A.R.M. Jamiul Alam	Physician	-	Jan.1967	Birmingham General Hosp. (British Post-graduate Medical Federation) Birmingham, U.K.	
3. Dr.(Mrs.) K.M. Ally	Physician	-	July 1968 or 1969	Dept.of Medicine, College of Physicians & Surgeons, Columbia Univ. N.Y., U.S.A.	She is now abroad at her own expense.She is on unpaid leave for 2 to 3 years. She went to USA in Feb. 1967.
4. Dr.Rezia Akbar	Physician	-	Feb.1969	Univ.of California Los Angeles, USA.	
5. Mr.C.R. Dey	Senior Research Assistant.	17.8.67	-	London School of Hygi- ene & Trop.Med., London, U.K.	
6. Dr.(Mrs.) Shamsa Ahmed	Physician	June 1967	-	School of Hygiene, P.H., Johns Hopkins Univ., Baltimore, Maryland, U.S.A.	
7. Mr. Yousuf A.Saeed	Senior Research Assistant.	-	21.11.67	Dept.of Biology, Univ. of Calgary, Alberta, Canada.	Extended at his own will & expense. Exptd back late 1968.

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T A B L E 'B'

FOREIGN TRAINING DURING THE FISCAL YEAR 1966-67

<u>Name</u>	<u>Designation</u>	<u>Date Returned</u>	<u>Expected date of Return</u>	<u>Place of Training</u>	<u>Remarks</u>
8. Mr.S.O.Q. Haider Ali.	Sociologist	-	-	Western Reserve Univ., Cleveland,Ohio, USA.	From 30.9.66 is abroad at his own expense.
9. Mr. N.A. Husain	Head, P.M.B.	8. 6. 67	-	NIAID, National Institutes of Health, Bethesda,Md.,U.S.A.	
10. Mr. Syed Iltefat Ahmed.	Senior Research Assistant.	24.10.66	-	U.S. Naval Medical Research Unit No.2, Taipei,Taiwan.	
11. Mr. Syed Zaki Salahuddin.	Senior Res.Asstt.	23.10.66	-	Walter Reed Army Institute of Res., Walter Reed Army Medical Centre, Washington, U.S.A.	Resigned on 10.4.67.

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Table C gives a breakdown of changes in key personnel:

T A B L E 'C'

Key Personnel Changes During
the Period July, 1966 - December, 1967.

<u>Name & Designation</u>	<u>Section</u>	<u>Date of Joining</u>	<u>Date of Departure</u>
1. Dr. Kendrick W. Hare, Deputy Director.	Director's Office.	24.9.66	-
2. Dr.(Mrs.) Ruth S.Hare Experimental Pharmacologist.	Chemistry.	24.9.66	-
3. Dr.Robert S. Northrup Research Physician.	Clinical Investigation.	19.7.66	-
4. Dr. Joseph L. Kinzie, Research Physician.	Clinical Investigation.	18.9.66	-
5. Dr. M. M. Rahman, Guest Investigator.	Clinical Investigation	10.11.66	-
6. Dr. Albert R. Martin, Research Physician.	Epidemiology	25.12.66	-
7. Miss Aet Jarv, Anthropologist	Epidemiology	17.9.66	10.9.67
8. Dr. David Nalin Research Physician.	Clinical Investigation	13.8.67	-
9. Dr. Richard A. Cash Research Physician.	Clinical Investigation	17.8.67	-
10. Mr. Mark P. Tucker Maintenance Officer.	Maintenance	8.8.67	-
11. Dr. Gordon E.Schwab Microbiologist.	Bacteriology	15.1.67	21.3.67
12. Dr. S.S.H. Rizvi, Chief.	Bacteriology	Aug.'63	16.8.66
13. Mr. Patrick G.Talmon, Executive Officer.	Director's Office.	10.1.67	-

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Physical Facilities

Housing is as acute a problem today as it was one year ago; adequate laboratory and office space is not available to house the large staff. In this connection it is hoped that a favourable decision can soon be reached by USAID/Washington on CRL's request for a new four-storey building. It should be briefly noted that the overflow of cholera patients during the yearly cholera season has to be sheltered in tents and makeshift housing. The laboratory's library is desperately in need of room for expansion.

Utilities

Utilities is another area where research work suffers because of lack of supportive facilities such as a proper and constant source of electricity, a hot water supply and gas for laboratory use. However, we have been fortunate in installing a steam generating plant to provide a dependable source of demineralised water and steam for autoclaves and stills, but not a hot water supply as originally envisaged. The steam generator was recently inspected and approved.

One 250 KW standby electrical generator has been ordered by NIH and is expected in Dacca around March, 1968. In conjunction with the above, the laboratory has an urgent requirement for complete revision of its electrical utilities. A modern sub-station and complete rewiring of the building occupied by the PSCRL are required and should be implemented at the same time as the installation of the standby generator (see recommendation of Technical Committee Report for FY 1967, page 4).

Maintenance

Although not occurring within the period covered by this report, it is worthwhile mentioning that with the arrival of a Maintenance Officer from the U.S. in August, 1967, and the consequential organisation of a separate Maintenance Section, it is hoped that many of the maintenance problems of keeping laboratory equipment operational which have plagued the laboratory since its inception, will be overcome in time.

However, with the proper organisation of maintenance, there is still a lack of many tools and pieces of equipment which the new Maintenance Officer will need if he is to provide adequate and effective maintenance support to the laboratory. Therefore, \$ 6,000 was set aside from the FY 68 budget for fitting out the Maintenance Section with proper tools and equipment. Although several pieces of "surplus" maintenance equipment were sent to the laboratory from NIH, only two pieces are in operating condition; other items are either incomplete, worn out or were damaged in transit.

Transportation

A. Currently the PSCRL operates 21 vehicles, including the personal cars of the Director and Deputy Director on loan to the laboratory. A Volkswagen microbus ambulance which the GOEP Health Services had loaned to the Laboratory was returned on request a few months later.

During FY 67 the laboratory received two new Austin sedans from the U.K. and two new Jeep Wagoneers from the U.S. These were welcome additions to a fleet of vehicles, many of which need replacing. A new ambulance is on order from the U.S. and is expected sometime in the calendar year '68. In addition, four new replacement vehicles, preferably of the station wagon or Carryall type, should be ordered during FY 68.

The Australian Government has consented to donate one microbus ambulance and one jeep to the laboratory during FY 68. Arrival dates of these two vehicles are not known as of the date of this report.

Many of the problems of servicing and repairing the fleet of vehicles could be overcome if the laboratory could standardize on one make of automobile. USAID/Dacca, which provides gasoline, oil, servicing and repairs has standardized on Chevrolets and Jeeps, and the laboratory is therefore forced to maintain the other makes which it owns. The laboratory does standardize on Chevrolets and Jeeps for those vehicles donated by the U.S. Government, but cannot on those vehicles donated by other SEATO member countries, such as the United Kingdom and Australia. However, the laboratory is making efforts to standardise on as few different makes as possible.

Table D indicates type and mileage for PSCRL vehicles:

T A B L E 'D'

Status of PSCRL Vehicles
December 1, 1967

<u>Make</u>	<u>Model</u>	<u>Licence</u>	<u>Mileage</u>
Plymouth	1964	7156	61,006
Wagoneer	1967	7449	9,000
Wagoneer	1967	7450	8,447

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T A B L E 'D'
Status of PSCRL Vehicles
December 1, 1967.

<u>Make</u>	<u>Model</u>	<u>Licence</u>	<u>Mileage</u>
Austin 850	1963	6033	81, 312
Austin 850	1963	6034	60,009 *
Austin 850	1964	7026	70,480 **
Austin 850	1964	7027	60,150 **
Austin 1100	1966	4677	50,726
Austin 1100	1966	4678	meter out of order
Austin 1100	1963	6032	64,065 **
Austin 1100	1967	7199	21,125
Austin 1100	1967	7198	18,475
Microbus	1961	1041	71,541
Jeep Station Wagon	1964	8729	81,071
Jeep	1960	6651	121,000
Dodge Ambulance	1962	2003	41,256 *
Land Rover	1962	2781	67,523 *
Land Rover	1962	2899	45,858 **
Chevrolet Carryall	1961	3978	60,148 *
Jeep Station Wagon	1960	6650	Deadlined
Dodge Sedan	1964	3423	30,500
Mercedes Benz	1962	5569	87,500

* Speedometer out of order.

** Under repair.

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B. Regarding the PSCRL fleet of 12 watercraft and 18 outboard engines, no additions were made during FY 67 although a number of new Boston Whaler type outboards and new outboard engines are budgeted to be purchased late in FY 68.

Out of the two turbocraft listed as out of order in last year's report, one has been repaired and put back into operation.

As mentioned in last year's report, the launch "Joseph E. Smadel", was inoperable and its repair was not considered feasible. The launch has since been returned to the GOEP. It was decided not to purchase a replacement.

Communications

Unexpected further delays were encountered in receiving frequency allocations before the issuance of a licence for operating a radio communication system between Dacca and Matlab. As of the date of this report, the final issuance of the licence is momentarily expected although it will be several months later at best before the equipment can be received from the Australian Government which is donating the system.

Supplies & Equipment

The scope and quality of research equipment has increased and improved steadily over the past year, but there is much room for further improvement. Most of the existing equipment is not of the quality found in a first class research laboratory. An adequate flow of supplies needed for research is another problem. Frequently, a research project has been delayed due to the delay in obtaining required supplies. Improvements are being made in reducing this bottleneck but at present this problem remains at times quite frustrating to investigators.

Efforts are still being made to secure exemption from customs duty and other taxes for entry into East Pakistan for consignments not otherwise covered by existing agreements. As mentioned before, much unnecessary delay is encountered in clearing those few consignments of supplies and equipment not exempt.

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To conclude, the nature, scope and quality of research that can be conducted will to a large extent depend on the supporting environment in which the research takes place. Consequently, to the extent that supportive services and facilities can be improved, to that same extent will the working environment be propitious to good research.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Seventh Meeting of the
DIRECTING COUNCIL

Dacca, East Pakistan - January 17-18, 1968

DIRECTOR'S FINANCIAL REPORT

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PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

FINANCIAL REPORT

F.Y. 67

During FY 67 the laboratory operated in full force through an unusually severe cholera epidemic. To cope with the epidemic, extra expenditures occurred mainly in the form of expanding the staff, extra supplies and materials and transportation of things, etc. On request from the laboratory, NIH revised Research Agreement No. 196802 and provided the PSCRL with an additional amount of Rs.717,000 and \$7,000 (see Appendix IX).

1. CRL OPERATING FUND

During Fiscal Year 1967, Rs.610,036 was expended from this fund, leaving a balance of Rs.17,599. At the beginning of the fiscal year 51% of the fund represented the restricted US contribution: therefore, 49% of the balance representing the unrestricted portion of the fund was transferred to the Capital Reserve Fund (Appendix I). 51% of the unexpended balance of the restricted US share was carried over to the F.Y. 68 Operating Fund.

2. NIH RESEARCH AGREEMENT

Rupee

During F.Y. 67 the NIH Research Agreement made available Rs.3,242,766 (including the previous year's carry-over and interest). After closing of accounts an uncommitted balance of Rs.74,115 remained and was carried over to F.Y. 68. Appendix II shows the income and expenditure of the fund during F.Y. 67. Total expenditures of Rs.3,168,652 exceeded the previous years expenditure of Rs.1,816,710 by approximately 75% over F.Y. 66.

Dollar

This portion is released by the NIH to the Bank of Bethesda account maintained and operated by PSCRL. \$87,086 (including F.Y.66 carry-over of US \$21,086) was made available during F.Y. 67. After closing the accounts an uncommitted balance of \$11,355 remained and was carried over to F.Y. 68. Appendix IIA shows the income and expenditure of the fund during F.Y. 67. Total expenditure of \$ 75,730 exceeded the previous years' expenditure of \$ 66,503 by approximately 12% over F.Y. 66.

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3. CAPITAL RESERVE FUND

The status of this fund for F.Y. 67 is shown in Appendix III. Rs.9,328 was transferred from the CRL Operating Fund which made available Rs.169,924 (including interest) of which Rs.31,228 was expended for the development of facilities and Rs.60,000 obligated for the installation of a steam generator. The transfer of Rs.8,624 from the PSCRL Operating Fund as shown in appendix I has increased the total amount available during F.Y. 68 to Rs.87,320.

Since the carry-overs from the CRL Operating Fund to the CRF are relatively small, and without additional funds for the coming years, the Capital Reserve Fund is fast diminishing. The following projects are projected, for which supplemental financing is required :

- | | | |
|---|-------|--------------------|
| 1. Building of one warehouse | | Approx. Rs.100,000 |
| 2. Closing in of corridors on CRL wing .. | | Approx. Rs. 20,000 |
| 3. Animal house improvements | ... | Approx. Rs. 50,000 |
| 4. Bacteriology Section improvements | ... | Approx. Rs. 80,000 |
| | | <hr/> Rs.250,000 |

It is requested that the Directing Council approve additional funds to supplement the Capital Reserve Fund for the above requirements and other needs as they may arise.

4. U.K. FUND

During the U.K. Financial Year 1966-67 (1 April, 1966 to 31 March, 1967) the Ministry of Overseas Development contributed £ 11,000. Part of this fund was expended directly by the PSCRL through the Crown Agents, and the remainder by the Ministry for the support to U.K. deputed personnel and for PSCRL personnel on training in the U.K.

The Ministry of Overseas Development released £ 7,000 of the £ 11,000 to the Crown Agents and with F.Y. 66's carry-over of £ 2,975, total funds available to PSCRL with the Crown Agents was £ 9,975. £ 9,707 was expended out of £ 9,976 and the remainder of £ 270 lapsed in accordance with U.K. Government regulations for non-utilization by the Crown Agents in the U.K.

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The Ministry of Overseas Development has expended U.K. £ 4,122 - i.e. £ 2,112 for support of UK deputed personnel and £ 1,910 for the support of PSCRL personnel training.

The following is a breakdown of support received by the PSCRL from the Government of the United Kingdom during F.Y. 67 :

	Through Crown Agents	Through M.O.D	Total
Personal Services	1,575.18.5	4,072.11.6	5,648.9.11
Travel & Transportation of Persons	35. 0.0	11. 9.0	46.9. 0
Transportation of Things	926. 7.9	-	926.7. 9
Other Contractual Services	209. 2.2	37.17.5	246.19.7
Supplies & Materials	1,671. 6.4	-	1,671. 6.4
Equipment	5,289. 2.4	-	5,289. 2.4
	<u>£ 9,706.17.0</u>	<u>£ 4,121.17.11</u>	<u>£13,828.14.11</u>

5. SEATO-AID-NIH CHOLERA FUND

The PSCRL utilized \$ 322,884 out of this fund which is controlled by the Chairman of the NIH Cholera Advisory Committee. \$ 66,000 of this amount was transferred to the Bank of Bethesda account. A breakdown of expenditures provided by NIH is given below :

Personal Services	\$ 725
Travel & Transportation of Persons	\$16,243
Transportation of Things	45,207
Other Contractual Services	83,498*
Supplies & Materials	92,136
Equipment	85,075
TOTAL:	<u>\$ 322,884</u>

* Includes \$ 66,000 transferred to Bank of Bethesda account.

6. USAID TRUST FUND

Estimated logistic support received by the PSCRL from this fund in terms of paragraph G.3 of the revised agreement between GOP and USAID of 30 December, 1961, amounted to Rs. 549,884. This covered expenses in connection with support of US Personnel assigned to PSCRL and cost for furnishing fuel for PSCRL vehicles and boats and for their maintenance. Itemized breakdown of expenditures is given below :

Personal Services	Rs. 33,644
Travel & Transportation of Persons	68,737
Transportation of Things	15,669
Other Contractual Services	293,544
Supplies & Materials	138,290
<u>TOTAL:</u>	Rs. 549,884

7. OTHER SUPPORT

a. US Government

Total commitments by the National Institutes of Health (NIAID & OIR) and the National Communicable Diseases Centre in support of personnel assigned to PSCRL was \$ 134,713 and broken down as follows :

Personal Services	\$ 123,724
Travel & Transportation of Persons	3,489
Transportation of Things	7,500
<u>TOTAL:</u>	\$ 134,713

b. Government of Pakistan

This covered support received by PSCRL in terms of accommodation (space), electricity, water supply, telephone bills and other incidental costs provided by the GOEP as stated in paragraph G.1 of the Revised Agreement between the GOP and USAID of 30 December, 1961. Estimated total support by the GOEP amounted to Rs. 400,000.

c. Government of Australia

Total commitments of the Government of Australia during F.Y. 67 was \$ A.9060 (Approximately Pak. Rs.48,018) under Personal Services.

8. F.Y. 68 PROVISIONS:

Appendix IV provides a current account of expenses for the Operating Fund and the NIH Research Agreement (Rupee). Appendix V gives current accounts of expenditure for the Bank of Bethesda account and the SEATO-AID-NIH Cholera Fund respectively administered by the Director, PSCRL and the Chairman, NIH Cholera Advisory Committee respectively.

Appendix VI provides a current account of expenses for the U.K. Contribution. As it is evident from these statements that the balance of this fund for the remaining part of F.Y. 68 is quite low and since the laboratory has more items that it would like to order this fiscal year, it is requested that the Directing Council increase the level of this fund.

9. SUMMARY

Appendix VII is a list indicating the total support available to the PSCRL by sources with the total expenditures and carry-over in currency of the respective contributing nations.

Appendix VIII shows the total support available to the PSCRL by sources with total expenditures for each source and all fund converted to Pakistani Currency. Appendix VIII also shows the total support by the contributing nations broken down by percentage.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORYCRL OPERATING FUNDSTATEMENT OF EXPENDITURES FOR F.Y. 1967
(JULY 1, 1966 TO JUNE 30, 1967)

<u>INCOME</u>		<u>EXPENDITURES</u>	
Opening balance for F.Y. 1966-67 after transfer of GOEP portion of unutilised balance of F.Y. 1965-66	Rs. 9,708.67	1. Personal Services	Rs. 409,656.63
Contribution by GOEP for F.Y. 1966-67	303,000.00	2. Travel & Transportation of Persons	15,163.91
Contribution by US Government PL-480 (Sec.104K) for F.Y. 1966-67	303,000.00	3. Transportation of Things	11,782.45
Interests earned on fixed deposit	11,926.43	4. Rent, Communication & Utilities	14,790.74
	<u>627,635.10</u>	5. Printing & Reproduction	9,461.30
		6. Other Contractual Services	31,512.56
		7. Supplies & Materials	108,114.42
		8. Equipment	9,554.00
			<u>610,036.01</u>

FINAL ACCOUNT

Total Income	...	Rs. 627,635.10
Minus total expenditure	...	<u>610,036.01</u>
		Rs. 17,599.09

US Govt. share of unutilised balance	... 51%	Rs. 8,975.09
GOEP share (Un-restricted portion)	49%	Rs. 8,624.00

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Appendix II

NIH RESEARCH AGREEMENT (RUPEE)

STATEMENT OF EXPENDITURES FOR F.Y. 1967
(JULY 1, 1966 TO JUNE 30, 1967)

INCOME

Opening balance for F.Y. 1966-67	...	Rs. 388,940.55
Contribution by NIH for F.Y. 1966-67	...	2,809,000.00
Interest earned on fixed deposit	...	44,825.68

EXPENDITURE

1. Personal Services	...	Rs. 1,939,588.49
2. Travel & Transportation of Persons	...	527,836.81
3. Transportation of Things	...	50,634.37
4. Rent, Communication & Utilities	...	76,790.40
5. Printing & Reproduction	...	10,062.69
6. Other Contractual Services	...	109,255.29
7. Supplies & Materials	...	307,155.86
8. Equipment	...	147,327.26

3,242,766.23

3,168,651.17

FINAL ACCOUNT

Total Income	...	Rs. 3,242,766.23
Minus total expenses	...	<u>3,168,651.17</u>
Total uncommitted balance available for carry over to F.Y. 1968	...	Rs. 74,115.06

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Appendix IIA

DOLLAR PORTION

ACCOUNT WITH BANK OF BETHESDA
OPERATED BY PSCL

INCOME

EXPENDITURE

Opening balance as of July 1, 1966 (Carry over of F.Y. 1965-66 unspent balance) ...	\$ 21,086.14	1. Personal Services	\$ 60,348.62
		2. Travel & Transpor- tation of Persons	6,633.12
NIH Contribution for F.Y. 1966-67 ...	\$ 66,000.00	3. Transportation of Things ...	1,727.65
		4. Rent, Communication & Utilities ...	416.73
		5. Printing & Reproduction ...	18.53
		6. Other Contractual Services ...	1,249.32
		7. Supplies & Materials..	3,105.02
		8. Equipment	2,231.66
	87,086.14		75,730.65

FINAL ACCOUNT

Total Income	...	\$ 87,086.14
Minus total expenditure	...	<u>75,730.65</u>
Total Fund available to carry over to F.Y. 1968 ...		\$ 11,355.49

Appendix III

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

CAPITAL RESERVE FUND

STATEMENT OF EXPENDITURES FOR F.Y. 1966-67

JULY 1, 1966 TO JUNE 30, 1967

INCOME

Opening balance from uncommitted portion of F.Y. 1966	...	Rs. 59,274
Uncommitted balance of GOEP share of CRL Operating Fund for F.Y. 1966	...	Rs. 9,327
GOEP Contribution due to be released during F.Y. 1966 but released during F.Y. 1967	...	Rs. 96,000
Interest earned on bank deposits	...	Rs. 5,323
		<u>Rs. 169,924</u>

EXPENDITURE

1. Additions & Alterations CRL Ward	...	Rs. 18,384
2. Repairing of approach road to CRL	...	Rs. 1,080
3. Additional charges for Electrification of Matlab Hospital	...	500
4. Construction of tin sheds for boats	...	923
5. Additions & Alterations of Animal house	...	10,341
		<u>Rs. 31,228</u>

FINAL ACCOUNT

Total Income		Rs. 169,924
Minus Expenditures...		<u>31,228</u>
		Rs. 138,696
Plus Transfer to CRF (Unspent balance of GOEP portion of OPF, F.Y.'67)	...	<u>Rs. 8,624</u>
		Rs. 147,320
Amount obligated for Installation of Steam Generator	...	<u>Rs. 60,000</u>
Fund available for F.Y.68		Rs. 87,320

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PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Appendix IV

STATEMENT OF BUDGET PROVISION AND EXPENDITURE FOR
THE PERIOD FROM JULY 1, 1967 TO DECEMBER 31, 1967

HEADS OF ACCOUNTS:	CRL OPERATING FUND							NIH RESEARCH AGREEMENT (RUPEE)						
	Budget Provision for F. Y. 1967-68.	Proportionate Provision from July 1 to Dec.31, 1967	Total commitment from July 1, 1967 to December 31, 1967			Savings or excess as per proportionate provision for 6 months	Balance left over for remaining period for 1967-68.	Budget Provision for F. Y. 1967-68.	Proportionate Provision from July 1 to Dec.31, 1967	Total commitment from July 1, 1967 to December 31, 1967			Savings or excess as per proportionate provision for 6 months	Balance left over for remaining period for 1967-68
			Expenditure	Unpaid Obligation	Total					Expenditure	Unpaid Obligation	Total		
PERSONAL SERVICES:	512000	256000	255553	13453	269006	- 13006	242994	2073200	1036600	975096	-	975096	61504	1098104
Professional	45000	22500	16299	9855	26154	- 3654	18846	350000	175000	210740	-	210740	- 35740	139260
Technical & Supporting	467000	233500	239254	3598	242852	- 9352	224148	1683200	841600	756996	-	756996	84604	926204
Consultant	-	-	-	-	-	-	-	40000	20000	7360	-	7360	12640	32640
2. TRAVEL & TRANSPORTATION OF PERSONS:	20000	10000	3912	10197	14109	- 4109	5891	650000	325000	330587	38581	369168	- 44168	280832
In Pakistan	5000	2500	3912	-	3912	- 1412	1088	250000	125000	119240	1500	120740	4260	129260
Outside Pakistan	1000	500	-	-	-	- 500	1000	150000	75000	68949	10700	79649	- 4649	70351
Consultant	14000	7000	-	10197	10197	- 3197	3803	250000	125000	142398	26381	168779	- 43779	81221
3. TRANSPORTATION OF THINGS:	15000	7500	247	-	247	7253	14753	60000	30000	15982	-	15982	14018	44018
Shipping & Clearance	15000	7500	247	-	247	7253	14753	60000	30000	15982	-	15982	14018	44018
4. RENT, COMMUNICATION & UTILITIES:	18000	9000	5756	-	5756	3244	12244	110000	55000	10836	596	11432	43568	98568
Rent	3000	1500	309	-	309	1191	2691	99000	49500	9626	596	10222	39278	88778
Communication	15000	7500	5447	-	5447	2053	9553	11000	5500	1210	-	1210	4290	9790
5. PRINTING & REPRODUCTION:	10000	5000	277	135	412	4588	9588	60000	30000	95	2340	2435	27565	57565
6. OTHER CONTRACTUAL SERVICE:	40000	20000	6223	835	7058	12942	32942	130000	65000	20656	1239	31895	33105	98105
Repair	25000	12500	2812	420	3232	9238	21738	65000	32500	6570	616	7186	25314	57814
Other	15000	7500	3381	415	3796	3704	11204	65000	32500	24086	623	24709	7791	40291
7. SUPPLIES & MATERIALS:	120000	60000	28153	3895	32048	27952	87962	318000	159000	141733	44568	186301	- 27301	131699
Laboratory & Hospital	30000	15000	5149	2777	7926	7074	22074	138000	69000	44380	37454	81834	- 12834	56166
Office & Janitorial	25000	12500	7805	-	7805	4595	17195	27500	13750	6769	3952	10721	- 3029	16779
Research Animal & Feed	10000	5000	1700	688	2468	2532	7532	22000	11000	11836	-	11836	- 836	10164
Fuel	4000	2000	2033	-	2033	- 33	1967	15000	7500	4271	718	4989	2511	10011
Hospital Food	20000	10000	4008	-	4008	5992	15992	45000	22500	24166	-	24166	- 1666	20834
Linens & Uniforms	10000	5000	1040	-	1040	3960	8960	23500	11750	6444	1572	8016	3734	15484
Educational	3000	1500	65	11	76	1424	2924	3000	1500	479	102	581	919	2419
Others	18000	9000	6263	419	6682	2318	11318	44000	22000	43388	770	44158	- 22158	- 158
8. EQUIPMENT:	15000	7500	966	-	966	6534	14034	150000	75000	17936	2009	19945	55055	130055
Laboratory & Hospital	5000	2500	290	-	290	2210	4710	73000	36500	13560	960	14520	21980	58480
Transport	-	-	-	-	-	-	-	40000	20000	134	-	134	19866	39866
Office	5000	2500	676	-	676	1824	4324	20000	10000	1695	985	2680	7320	17320
Books (Permanent)	-	-	-	-	-	-	-	3000	1500	116	64	180	1320	2820
Others	5000	2500	-	-	-	2500	5000	14000	7000	2431	-	2431	4569	11569
GRAND TOTAL:	1/ 750000	375000	301077	28515	329592	45408	420408	3551200	1775600	1522921	89333	1612254	163346	1938946

1/ Government of East Pakistan has already sanctioned Rs.303,000 & proposal for additional amount of Rs.97,000 is under consideration.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

STATEMENT OF BUDGET PROVISIONS AND TOTAL COMMITMENT
FOR THE PERIOD FROM JULY 1, 1967 TO NOVEMBER 30, 1967

SEATO-AID-NIH DOLLAR FUND & BANK OF BETHESDA ACCOUNT

OBJECT CLASS:	1/ SEATO-AID-NIH DOLLAR FUND					2/ BANK OF BETHESDA ACCOUNT				
	Budget Provision for F. Y. 1967-68	Proportionate Provision from July 1 to Nov. 30, 1967	Total commitment from July 1 to Nov. 30, 1967	Savings or excess as per proportionate provision for 5 months	Balance left over for remaining period for 1967-68	Budget Provision for F. Y. 1967-68	Proportionate Provision from July 1 to Nov. 30, 1967	Total commitment from July 1 to Nov. 30, 1967	Savings or excess as per proportionate provision for 5 months	Balance left over for remaining period for 1967-68.
11 <u>PERSONAL SERVICES:</u>	27,600	11,500	4,205	7,295	23,395	65,600	27,332	24,527	2,805	41,073
12 <u>PERSONAL BENEFITS:</u>	1,800	750	225	525	1,575	-	-	-	-	-
21 <u>TRAVEL & TRANSPORTATION OF PERSONS:</u>	23,000	9,585	12,600	- 3,015	10,400	5,500	2,292	1,955	337	3,545
23 <u>TRANSPORTATION OF THINGS:</u>	53,000	22,085	10,938	11,147	42,062	2,900	1,208	304	904	2,596
24 <u>RENT, COMMUNICATION & UTILITIES:</u>	1,000	418	-	418	1,000	800	334	91	243	709
25 <u>PRINTING & REPRODUCTION:</u>	-	-	-	-	-	-	-	-	-	-
26 <u>OTHER CONTRACTUAL SERVICES:</u>	130,000	54,165	^{3/} 99,360	- 45,195	30,640	10,100	4,208	350	3,858	9,750
27 <u>SUPPLIES & MATERIALS:</u>	87,000	36,250	42,796	- 6,546	44,204	6,600	2,750	79	2,671	6,521
31 <u>EQUIPMENT:</u>	64,000	26,665	31,319	- 4,654	32,681	4,000	1,666	558	1,108	3,442
<u>TOTALS:</u>	\$ 387,400	\$ 161,418	\$ 201,443	\$- 40,025	\$185,957	\$95,500	\$39,790	\$27,864	\$ 11,926	\$ 67,636

1/ Fund controlled by the Chairman, NIH Cholera Advisory Committee

2/ Fund controlled by the Director, PSCRL

3/ Includes transfer of \$ 95,500 to Bank of Bethesda account

Appendix VI

STATEMENT OF BUDGET PROVISION & EXPENDITURE FOR
THE PERIOD FROM APRIL 1, 1967 TO NOVEMBER 30, 1967

UK/CRL FUND

<u>OBJECT CLASS:</u>	Budget Provision for F. Y. 1967-68	Proportionate Provi- sion from April thru November '67	Expenditure from April thru November '67	Savings or excess as per propor- tionate provision	Balance left over for re- maining period, F.Y
<u>PERSONAL SERVICES:</u>	5,500	3,666	^{1/} 4,035	- 369	1,465
<u>TRAVEL & TRANSPORTATION OF PERSONS:</u>	250	168	-	168	250
<u>TRANSPORTATION OF THINGS:</u>	250	168	492	- 324	- 242
<u>RENT, COMMUNICATION & UTILITIES:</u>	-	-	-	-	-
<u>PRINTING & REPRODUCTION:</u>	-	-	-	-	-
<u>OTHER CONTRACTUAL SERVICES</u>	-	-	1,170	- 1,170	- 1,170
<u>SUPPLIES & MATERIALS:</u>	2,000	1,330	1,044	286	956
<u>EQUIPMENT:</u>	2,000	1,330	1,514	- 184	486
<u>TOTAL:</u>	<u>£10,000</u>	<u>£6,662</u>	<u>£8,255</u>	<u>£1,593</u>	^{2/} <u>£1,745</u>

- 1/ Includes estimated spendings of £1620 & 1000 for support of U.K. deputed personnel & PSCRL Personnel on training in U.K. respectively by M.O.D.
- 2/ Out of £1745 the Crown Agent now hold only £817 of which they will require £730 to pay salaries of the Secretary to the Director & £985 to execute the orders for supplies & Equipment already pending with them, so there will be net deficit of £898 in the Crown Agent account. The other £928 now hold by M.O.D. will hardly cover payment of salaries to U.K. Personnel deputed to PSCRL & also to support the PSCRL Personnel on training in U.K.

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PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

STATEMENT OF EXPENDITURE FOR F.Y. 1966-67
(JULY 1, 1966 TO JUNE 30, 1967)

OBJECT CLASS:	R U P E E F U N D			D O L L A R F U N D		STERLING FUND	OTHER SUPPORT			
	CRL Operating Fund	NIH Research Agreement Rupee Fund	CRL Capital Reserve Fund	Bank of Bethesda account	NIH/ SEATO Fund	UK/CRL Fund	US/AID Logestic Support	NIH-US Techni- cian Fund	GOEP	Govt. of Austra- lia
<u>TOTAL FUND AVAILABLE:</u>	Rs. <u>627,635</u>	Rs. <u>3,242,766</u>	Rs. <u>169,923</u>	\$ <u>87,086</u>	\$ <u>300,673</u>	£ <u>13,828</u>	Rs. —	\$ —	Rs. —	\$A —
<u>EXPENDITURE</u>										
<u>PERSONAL SERVICES:</u>	409,656	1,939,588	—	60,349	725	5,648	33,643	123,724	—	9,060
<u>TRAVEL & TRANSPORTATION OF PERSONS:</u>	15,164	527,837	—	6,633	16,243	47	68,737	3,489	—	—
<u>TRANSPORTATION OF THINGS:</u>	11,782	50,634	—	1,728	45,207	926	15,669	7,500	—	—
<u>RENT, COMMUNICATION & UTILITIES:</u>	14,791	76,790	—	417	—	—	—	—	—	—
<u>PRINTING & REPRODUCTION:</u>	9,461	10,063	—	19	—	—	—	—	—	—
<u>OTHER CONTRACTUAL SERVICES:</u>	31,513	109,255	31,228	1,249	83,494	248	293,544	—	400,000	—
<u>SUPPLIES & MATERIALS:</u>	108,114	307,156	—	3,105	92,136	1,671	138,290	—	—	—
<u>EQUIPMENT:</u>	9,555	147,328	—	2,231	85,075	5,288	—	—	—	—
<u>TOTAL EXPENDITURE:</u>	<u>610,036</u>	<u>3,168,651</u>	<u>31,228</u>	<u>75,731</u>	<u>322,884</u>	<u>13,828</u>	<u>549,883</u>	<u>134,713</u>	<u>400,000</u>	<u>9,060</u>
<u>BALANCE:</u>	^{1/} <u>17,599</u>	<u>74,115</u>	<u>138,695</u>	<u>11,355</u>	—	—	—	—	—	—
<u>GRAND TOTAL:</u>	Rs. <u>627,635</u>	Rs. <u>3,242,766</u>	Rs. <u>169,923</u>	\$ <u>87,086</u>	—	—	—	—	—	—

- 1/ Of Rs. 17,599 the GOEP share of Rs. 8,624 was transferred to the CRL Capital Reserve Fund according to paragraph D.I.e. of Revised agreement between Pakistan-AID December 30, 1961.
- 2/ Fund controlled by NIH and includes \$ 66,000 transferred to Bank of Bethesda account.
- 3/ Part of this Fund directly controlled by the Ministry of Overseas Development, Govt. of U.K. and part by the CRL through Crown Agents.
- 4/ Estimated logestic support received by the CRL from US/AID P according to paragraph G.3. of the revised agreement between Pakistan-AID, December 30, 1961.
- 5/ Total support of the US PHS Personnel assigned to CRL.
- 6/ Estimated logestic support received by the CRL from GOEP according to paragraph G.1. of the revised agreement between Pakistan-AID, December 30, 1961.
- 7/ Total support of the Australian Govt. Personnel assigned to CRL.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

STATEMENT OF EXPENDITURE FOR F.Y. 1966-67
(JULY 1, 1966 TO JUNE 30, 1967)

(ALL FUNDS IN PAK CURRENCY)

OBJECT CLASS:	R U P E E F U N D			D O L L A R F U N D		STERLING FUND	OTHER SUPPORT				Grand Total
	CRL Operating Fund	NIH Research Agreement Rupee Fund	CRL Capital Reserve Fund	Bank of Bethesda Account	SEATO-AID-NIH Fund	UK/CRL Fund	US/AID Loges-tic Support	NIH-US Techni-cian Fund	GOEP Support	Govt. of Australia	
<u>TOTAL FUND AVAILABLE:</u>	<u>627,635</u>	<u>3,242,766</u>	<u>169,923</u>	<u>418,012</u>	<u>1,443,230</u>	<u>183,359</u>	-	-	-	-	-
<u>EXPENDITURE</u>											
<u>PERSONAL SERVICES:</u>	409,656	1,939,588	-	289,675	3,480	74,892	33,643	593,875	-	48,018	3,392,827
<u>TRAVEL & TRANSPORTATION OF PERSONS:</u>	15,164	527,837	-	31,838	77,966	623	68,737	16,747	-	-	738,912
<u>TRANSPORTATION OF THINGS:</u>	11,782	50,634	-	8,294	216,994	12,278	15,669	36,000	-	-	351,651
<u>RENT, COMMUNICATION & UTILITIES:</u>	14,791	76,790	-	2,002	-	-	-	-	-	-	93,583
<u>PRINTING & REPRODUCTION:</u>	9,461	10,063	-	91	-	-	-	-	-	-	19,615
<u>OTHER CONTRACTUAL SERVICE:</u>	31,513	109,255	31,228	5,995	^{1/} 83,990	4,614	293,544	-	400,000	-	960,139
<u>SUPPLIES & MATERIALS:</u>	108,114	307,156	-	14,904	442,253	22,157	138,290	-	-	-	1,032,874
<u>EQUIPMENT:</u>	9,555	147,328	-	10,708	408,360	70,119	-	-	-	-	646,070
<u>TOTALS:</u>	<u>610,036</u>	<u>3,168,651</u>	<u>31,228</u>	<u>363,507</u>	<u>1,233,043</u>	<u>184,683</u>	<u>549,883</u>	<u>646,622</u>	<u>400,000</u>	<u>48,018</u>	<u>7,235,671</u>

1/ US \$ 66,000 equivalent to Pak Rs. 316,800 transferred to Bank of Bethesda account has not been included.

BREAK DOWN OF SUPPORT BY CONTRIBUTING NATIONS BY PERCENTAGE

Expenditure from US Govt. support

1. CRL Operating Fund	...	Rs. 311,118
2. NIH Research Agreement (Rupee)	...	3,168,651
3. CRL Capital Reserve Fund	...	10,929
4. Bank of Bethesda account	...	363,507
5. SEATO-AID-NIH Fund	...	1,233,043
6. Other Support	...	1,196,505

Rs. 6,283,753 86.84%

Expenditure from GOEP Support

1. CRL Operating Fund	...	Rs. 298,918
2. CRL Capital Reserve Fund	...	20,299
3. Other Support	...	400,000

Rs. 719,917 10%

Expenditure from UK Govt. Support

Rs. 184,683 2.50%

Expenditure from Govt. of Australia Support

Rs. 48,018 0.66%

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

Agreement No. 196802

Amendment No. 4

Parties to the Agreement:

1. The United States Government as represented by the National Institutes of Health, PHS, DHFW, Bethesda, Maryland 20014, U.S.A.
2. Pakistan-SEATO Cholera Research Laboratory, Dacca, East Pakistan.

Purpose of 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: From July 1, 1966 to June 29, 1967.

Funds to be Provided during Period of Agreement: 717,000 Pakistan rupees

\$7,000 U. S. dollars

National Institutes of Health

Collaborating Institution

Project
Officer Margaret Pittman, Ph.D.

Pakistan-SEATO Cholera Research
Laboratory
Dacca, East Pakistan

Laboratory
& Institute Laboratory of Bacterial
Products
Division of Biologics
Standards

Dr. Robert A. Phillips
Principal Investigator

Director, Pakistan-SEATO Cholera
Research Laboratory
Title

Authorizing
NIH Official James ... 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. Robert A. Phillips
Director, Pakistan-SEATO
Cholera Research Laboratory

Validating signatures will appear
at the end of the Agreement.

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

Agreement No. 196802
Amendment No. 4.

This Amendment to the 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-SERVO Cholera Research Laboratory, Dacca, East Pakistan, hereinafter referred to as "the Cholera Research Laboratory", or "CRL".

This Amendment consists of Sections I through XI, 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 currencies to an amount not to exceed 717,000 Pakistan rupees for the performance of this research by the Cholera Research Laboratory to be paid as provided for hereinafter. In addition, the NIH will provide \$7,000 U.S. as identified in the Budget Plan, Section IV. The Cholera Research Laboratory agrees to utilize such funds solely for the purpose of carrying out the research activities set forth in Section II in accordance with the terms and conditions hereinafter specified, and to accept payment in local currencies in the amount specified.

Section II

Objectives and Description of Work to be Performed

1. Objectives: To determine the pathogenesis of cholera and to develop and improve and demonstrate measures for the prevention and eventual eradication of cholera.
2. Supplementation of Existing Project

The present budget of 4,626,000 Pakistan rupees and \$124,000 for the period

of Amendment No.3 is not sufficient for maintenance of the project at a level of operation adequate to achieve the objectives of this project set forth in the Agreement. The several factors which have necessitated this Amendment for supplemental funds are set forth in the following paragraphs.

"The first factor was the necessity to have an adequate source of relatively well-regulated electrical power at least for the very most delicate laboratory equipment. Since the present source of electrical energy is inadequate, and since no adequate relief is foreseeable in the immediate future, it became necessary to install an additional power line and pay the additional electrical charges.

"The second factor in the proposed increase was the necessity to rent housing for the Secretary to the Director, and for a bacteriologist and an anthropologist seconded to the CRL by the Australian Government.

"The third factor in unforeseen expenses was the result of modifying CRL annual leave regulations. Since the CRL personnel regulations should parallel as far as possible those of the local government, CRL employees were allowed to accumulate any number of hours as annual leave and carry them over from one year to the next without limit. This practice presented budget difficulties when employees terminated their employment and cashed in their accumulated years of annual leave. To alleviate this problem, CRL employees are now allowed to carry over certain portions of their accumulated leave from one year to the next or cash them in according to a fixed formula in order to avoid unusually large amounts of annual leave to accumulate which would otherwise be disruptive to the budget.

"The fourth factor which makes it necessary to revise the budget was the extra expenses incurred during the present unusually severe cholera epidemic which the CRL had neither foreseen nor budgeted for. Extra expenditures occurred mainly in the form of expanding the staff, extra supplies and materials, and transportation of things, besides smaller extra expenditures for travel and for contractual services.

"The additional dollars are required primarily to augment the personal services category. Dr. and Mrs. Hare were added to the staff as contract employees and more precise budgeting of the allowances payable in dollars to all dollar contract employees (other American employees receive these allowances from the agency paying their salaries) have increased this item. Also, sufficient funds had not been budteted for expenses of contract employees and trainees sent abroad".

3. Description of Research Plan: The epidemiology of cholera in East Pakistan, a highly endemic area for this disease, will be investigated intensively, and will also be studied elsewhere as opportunities occur. The ecology of the cholera vibrio, insofar as it may exist in water or other media outside the human host will be studied. Clinical studies directed toward a better understanding of the host-parasite relationship in acute cholera will be undertaken, as well as physiological studies of patients using all available clinical techniques. Attempts will be made to elucidate the part played by nutrition and other factors in predisposing individuals to the disease, thus paving the way for improved methods of prevention and treatment. Means of preventing and controlling the disease will be tested; these will include controlled studies on vaccination in selected areas or population groups.
4. 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 S.E.A.T.O, 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.
5. 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 Funds of the CRL and to finance that portion of the research plan of the CRL described in Section II of this Agreement.
 - e. To provide dollar currency in limited and specified amounts for salaries of non-Pakistani scientists who are essential to the clinical, immunological, or epidemiological investigations and who are not paid by other agencies. In addition, certain dollar funds may be made available for the direct purchase by the CRL of essential equipment and supplies that cannot be purchased on the local market.
6. Changes in Respective Responsibilities or Research Plan

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 July 1, 1965 and shall not extend beyond June 29, 1967, 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 and, in certain specified instances, in U.S. dollars, 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 717,000 Pakistan rupees and \$7,000 U.S.
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, and 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 or the program costs for the uncompleted portion thereof.

3. Budget Plan, Details of Revised Budget

PART A: PL-480 Support for CRL General Operating Fund

July 1, 1965 - June 30, 1966	Rs. 275,000	
July 1, 1966 - June 30, 1967	<u>303,000</u>	
NIH Contribution.....	Rs.	578,000

PART B: PL-480 Support in Addition to Operating Fund
Contribution (detailed budget below)

July 1, 1965 - June 30, 1966	Rs. 1,956,000	
July 1, 1966 - June 30, 1967	<u>2,809,000</u>	
NIH Contribution.....	Rs.	<u>4,765,000</u>
Grand Total.....	Rs.	5,343,000

PART C: U.S. Dollar Support (detailed budget attached)

July 1, 1965 - June 30, 1966	\$ 65,000
July 1, 1966 - June 30, 1967	<u>66,000</u>
Total U.S.....	\$131,000

Part B: detailed budget (1967 revised)

	<u>FY 1967</u>
Personal Services	Rs. 1,874,000
Travel	595,000
Transportation	55,000
Rent, Communications & Utilities	100,000
Printing & Reproduction	55,000
Other Contractual Services	120,000
Supplies and Materials	298,000
Equipment	<u>136,000</u>
	Rs. 3,233,000
Less carry-over balance from FY'66 & estimated interest earned	<u>-424,000</u>
	Rs. 2,809,000

Part C: detailed budget (1967 revised)

RESEARCH:

	<u>FY 1967</u>
Personal Services	
Travel	\$152,400
Transportation	2,500
Rent, Communications & Utilities	2,600
Other Contractual Services	700
Supplies	5,786
Equipment	4,500
	3,600

TRAINING:

Personal Services	7,500
Travel	2,500
Other Contractual Services	3,500
Supplies	1,500
	<u>\$87,086</u>
Less carry-over balance from FY'66	<u>-21,086</u>
	\$66,000

4. Budget Plan, Distribution of Supplemental Funds

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

	<u>Local Currency</u>	<u>U.S. Dollars</u>
a. Personal Service	Rs 302,500	\$3,000
b. Travel	180,500	2,000
c. Transportation	28,500	
d. Rent, Communication & Utilities	74,000	
e. Printing & Reproduction	2,500	
f. Other Contractual Services	45,000	2,000
g. Supplies & Materials	30,000	
h. Equipment	<u>54,000</u>	<u> </u>
	Rs. 717,000	\$7,000

5. 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 ten percent from each of the above estimated items 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 continue this program in the amount of 717,000 Pakistan rupees for the period July 1, 1966 to June 29, 1967.

2. 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 determination by the NIH after consultation with the collaborating institution of the amount to be allowed for liquidation of 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 representative at any reasonable time.

Section VII

Equipment, Supplies, and Materials

Those residual values of equipment and unconsumed supplies and materials remaining at the completion of 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

Publications 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. Changes or substitutions of Principal Investigators 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 three 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)

Apr 17 1967

(Date)

(For use where applicable)

COLLABORATING INSTITUTION

For the Government of _____

By Robert A. Phillips

Director, Pakistan-SEATO Cholera
Research Laboratory

(Title)

(Official Title)

Dacca, East Pakistan

(Business Address)

Mar 23 1967

(Date)

(Date)

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

PGT/DP

14 April, 1967

Dr. Willard Boynton,
Senior Public Health Officer,
US/AID Pakistan,
Lahore.

Through Dr. Jean F. Rogier,
Chief Public Health Adviser,
US/AID, Dacca.

Dear Dr. Boynton,

Recommendation No. 2 Audit Report No. 67-14
Dated February 7, 1967

This is related to the second question raised by auditors on page 5 of the above audit report about the consumption of 660 gallons of diesel oil, 40 gallons of lubricating oil and 10 pounds of grease by the hospital launch, "Joseph E. Smadel" during the period of 31 January to 26 February, 1966.

After a thorough check it was revealed that the launch had been in actual operation between Narayanganj and Matlab during the period in question. Responsible members of the PSCRL staff signed for the trips.

The auditors were furnished with the "Smadel" log book which did not contain the record of the delivery during the period in question because this log book had been taken to the CRL office sometime prior to the auditors' visit for verification. While this log book was in the office, the individual responsible for transportation mistakenly entered the notation that the "Smadel" was under repair during the time in question because he had been misinformed by another employee.

The record of the delivery of the materials in question were actually delivered to the "Smadel" and noted in an old log book of the launch "Abu Baker" - another launch that had been on loan to the CRL but had been returned to the GOEP on 22 June, 1965.

.../-

- 2 -

The "Smadel" log book has been corrected to accurately reflect the delivery in question, and I hope that this matter can now be considered closed.

Incidentally, the launch, "Smadel", was returned to the GOEP on 20 March, 1967.

Sincerely yours,

Patrick G. Talmon
Executive Officer

PAKISTAN-SEATO CHPLERA RESEARCH LABORATORY

Seventh Meeting of the
DIRECTING COUNCIL

Dacca, East Pakistan - January 17-18, 1968

REVIEW OF THE AUDITOR'S REPORT AND
THE DIRECTOR'S COMMENTS

DC 7/6

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORYREVIEW OF AUDITOR'S REPORT AND DIRECTOR'S COMMENTS

Attached is a copy of the audit report covering the financial operations for FY 1967, July 1, 1966 through June 30, 1967.

On page 3 of the auditor's report are the findings and the recommendation of the auditors regarding gasoline and expendable and non-expendable property.

Accounts of gasoline & oil.

The gasoline and oil consumed for the operation of boats for the Matlab Project are furnished by USAID. The points referred to are under investigation and a report will be submitted to USAID as soon as the investigation is completed.

Accounting of Expendable and Non-expendable property.

The irregular accounting of the expendable and non-expendable property of the laboratory has already received due attention of the Director, PSCRL. The laboratory has requested the services of Mr. Michael Spontak, an expert in the above field, from NIH, for 8 weeks' consultative services for improving the above set-up.

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UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
MISSION TO PAKISTAN
LAHORE

REPORT OF AUDIT

PROJECT NO. 391-11-510-138

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

For the Period July 1, 1966 to June 30, 1967

ISSUED BY THE OFFICE OF
ASSISTANT DIRECTOR/CONTROLLER
Report No. 68-25
January 9, 1968

REPORT OF AUDIT

PROJECT NO. 391-11-510-138

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

For the Period July 1, 1966 to June 30, 1967

Scope of Examination

We have examined certain funds provided to the Cholera Research Laboratory (CRL) for the year ended June 30, 1967.

Our examination was limited to funds provided by the United States Agency for International Development (USAID), the National Institute of Health (NIH), and the Government of Pakistan (GOP) which are directly controlled by CRL.

Our examination was conducted in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures which we considered necessary in the circumstances.

Background Information

The CRL was established in 1960 as a part of a regional Cholera Research Program sponsored by SEATO. The Governments of the United States, Pakistan, The United Kingdom and Australia have assisted the CRL's operations by providing funds, equipment and administrative and technical personnel.

The GOP and AID entered into an agreement on October 14, 1960, to establish the CRL at Dacca. This agreement has been revised several times and, at the date of this report, extended to June 30, 1970.

The CRL has been financed or supported from several sources. However, our examination has been limited to the following fund sources which are directly controlled by CRL.

1. SEATO-AID-NIH Cholera Research Fund

This fund, administered by the NIH, has given dollar support to the CRL. A portion of the support funds, \$231,998, has been deposited in the Bank of Bethesda, Maryland, for direct use by CRL; \$220,642 of this amount has been obligated during the year (EXHIBIT A).

2. NIH Research Agreement Fund

This is a rupee fund allocated by the U. S. Treasury to NIH under Section 104(k) of PL 480 Title I agreements in Pakistan. NIH has provided Rs. 8,190,000 of these funds to the CRL through June 30, 1967 including Rs. 2,809,000 during the audit year (Exhibits B & C).

3. GOP-NIH General Operating Fund

This is a rupee fund generated by equal annual contributions from NIH and the GOP. The NIH Portion of the contribution is from its Section 104(k) Title I holdings and the uncommitted year end balance is carried forward to the next fiscal year. The uncommitted year end balance attributed to the GOP contribution is transferred to the "Capital Reserve Fund" described in section 4. As indicated in Exhibits B and C, a total of Rs. 1,458,000 had been contributed to the General Operating Fund by the GOP and Rs. 1,353,000 by NIH through June 30, 1967. Each Agency contributed Rs. 303,000 during this fiscal year.

4. GOP-USAID Capital Reserve Fund

This is a fund which was established in 1962 by a GOP contribution of Rs. 2,680 and a USAID contribution of Rs. 95,200 from PL 480, Section 104(f) (formerly 104(e)). Since FY 1962 contributions totalling Rs. 246,914 were made by the GOP including Rs. 8,624 during the current year. However, these GOP contributions all represented uncommitted balances transferred from the General Operating Fund. In addition, the GOP has contributed Rs. 96,000 to the fund this year in order to match a similar FY 1966 contribution made by the USAID.

5. USAID Trust Fund Rupee Support

The USAID provides Trust Fund rupees for the administrative support and other local expenses of the CRL's American staff and for the costs of gasoline, oil and maintenance of the CRL's vehicles and boats. Total expenditures for this purpose amount to Rs. 1,980,161 including Rs. 549,884 expended this fiscal year.

All recommendations contained in prior audit (Report No. 67-14, dated February 7, 1967) have been closed.

AUDIT FINDINGS AND RECOMMENDATIONS

Financial Statements

The CRL's financial statements and supporting schedules, prepared by us from CRL and USAID records or reports, are presented in Exhibits A through D. Except for CRL's departure from the accrual basis of accounting for obligations (see footnote 1/ to Exhibit C), in our opinion the financial statements for the funds directly controlled by the CRL present fairly the financial position at June 30, 1967, and the results of operations for the year then ended.

Inventory Control

Our examination has disclosed that there is a complete lack of internal control over expendable and non-expendable property which has resulted in a substantial loss of gasoline and oil and opened the door to the possibility of extensive additional losses.

We were unable to account for 4,966 gallons of gasoline and 327 gallons of oil issued by the American Consulate, Dacca for use by the CRL hospital at Matlab. According to the accounting records the hospital had not received any gasoline or oil from July 1, 1966 to September 18, 1966 although Consulate records showed consistent releases during the same period. Since CRL records are incomplete, receiving reports were not issued, and maintenance of log books for motor boats has been discontinued, we have not been able to distinguish between actual physical loss and book losses caused by improper accounting. However, CRL has dismissed the person responsible for gasoline procurement during the audit period as a result of shortages that came to CRL's attention.

CRL has failed to adequately maintain inventory cards for non-expendable property. Out of 19 items selected for examination (representing approximately 40% of FY 1967 acquisitions) 7 cards were not available, 11 cards did not show the location of the property and 12 property items could not be physically located. These deficiencies are so great that they effectively eliminate the internal control over non-expendable property.

CRL has an established stock room for expendable property items. However, our examination disclosed that, because requisition forms were not required for all issues of supplies and because stock cards were not properly posted, there was no effective control over expendable property. We selected 24 items from purchase vouchers and attempted to trace them to inventory cards; we could only locate 4 cards and only 3 of these showed the physical location of the items.

Recommendation No. 1

The USAID's Public Health Division should require that CRL establish and maintain an adequate system of internal control over expendable and non-expendable property. Such a system should include, but not be limited to: a) Issuance of prenumbered receiving reports and prompt posting of acquisitions

to inventory cards, b) issuance of property only against approved, prenumbered requisition forms and prompt posting to inventory cards and c) periodic physical inventories including reconciliation of quantities, by location, to the inventory card balances. All prenumbered forms should be accounted for. Log Books for boats should be maintained and kept up to date and periodic checks of gasoline and oil consumption should be made.

CUMULATIVE DOLLAR OBLIGATIONS INCURRED AGAINST THE SEATO-AID-NIH CHOLERA RESEARCH FUND
FOR THE PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY (CRL) THROUGH JUNE 30, 1966

<u>Description</u>	<u>Through 6/30/66</u>		<u>7/1/66 - 6/30/67 (FY 1967)</u>		<u>Cumulative Through 6/30/67</u>	
	<u>Controlled By NIH 1/</u>	<u>Controlled By CRL</u>	<u>Controlled By NIH 1/</u>	<u>Controlled By CRL</u>	<u>Controlled By NIH 1/</u>	<u>Controlled By CRL</u>
Personal Services	\$ 2,013	\$119,453	\$ 725	\$60,349	\$ 2,738	\$179,802
Travel & Transportation of Persons	54,634	5,813	16,243	6,633	70,877	12,446
Transportation of Things	116,323	4,929	45,207	1,728	161,530	6,657
Rent, Commun. & Utilities	163	1,782	-0-	417	163	2,199
Printing & Reproduction	46	-0-	-0-	18	46	18
Other Contractual Services	125,765	3,326	83,498	1,249	209,263	4,575
Supplies & materials	202,880	6,949	92,136	3,105	295,016	10,054
Equipment	169,688	2,659	85,075	2,232	254,763	4,891
Total Obligation	<u>\$671,512</u>	<u>\$144,911</u>	<u>\$322,884</u>	<u>\$75,731</u>	<u>\$994,396</u>	<u>\$220,642</u>

1/ As shown in NIH reports to the CRL, less obligations controlled by the CRL, through the Bank of Bethesda account, shown in the next column.

CRL Bank of Bethesda Account, FY 1967 Transactions (Per CRL Record)

Unobligated Balance at July 1, 1966	\$21,087
NIH Funds Transferred during FY 1967	<u>66,000</u>
Total Available	\$87,087
FY 1967 Obligations	<u>75,731</u>
Unobligated Balance at June 30, 1967	<u>\$11,356</u>

STATEMENT OF SOURCE AND STATUS OF RUPEE FUNDS CONTRIBUTED TO THE CRL
AS OF JUNE 30, 1967

RESEARCH AGREEMENT FUND

	CONTRIBUTIONS		TOTAL	OBLIGATIONS &	UNCOMMITTED
	NIH	INTEREST	RECEIPTS	EXPENDITURES	BALANCE
FY - 1962	Rs. 533,755	Rs. 3,537	Rs. 537,292	Rs. 44,285	Rs. 44,285
FY - 1963	746,245	14,751	760,996	630,193	
FY - 1964	773,619	11,688	785,307	1,105,562	
FY - 1965	1,371,381	13,581	1,384,962	1,477,508	
FY - 1966	1,956,000	38,641	1,994,641	1,816,710	
FY - 1967	<u>2,809,000</u>	<u>44,826</u>	<u>2,853,826</u>	<u>3,168,651</u>	
TOTAL	Rs. <u>8,190,000</u>	Rs. <u>127,024</u>	Rs. <u>8,317,024</u>	Rs. <u>8,242,909</u>	Rs. <u>74,115</u>

GENERAL OPERATING FUND

	CONTRIBUTIONS		INTEREST	MISC.	TOTAL	OBLIGATIONS &	TRANSFERS TO	UNCOMMITTED
	GOP	NIH		RECEIPTS	RECEIPTS	EXPENDITURES	CAPITAL RESERVE FUND	BALANCE
FY - 1962	Rs. 210,000	210,000	Rs. 1,5790	Rs. -	Rs. 315,790	Rs. 83,266	Rs. 162,523	
FY - 1963	210,000	210,000	4,372	217	424,589	394,660	42,971	
FY - 1964	210,000	210,000	3,041	-	423,041	448,459	13,878	
FY - 1965	250,000	250,000	2,602	-	502,602	500,411	9,590	
FY - 1966	275,000	275,000	8,291	-	558,291	549,520	9,328	
FY - 1967	<u>303,000</u>	<u>303,000</u>	<u>11,926</u>	-	<u>617,926</u>	<u>610,036</u>	<u>8,624</u>	
TOTAL	Rs. <u>1,458,000</u>	<u>1,353,000</u>	Rs. <u>31,022</u>	Rs. <u>217</u>	Rs. <u>2,842,239</u>	Rs. <u>2,586,352</u>	Rs. <u>246,914</u>	Rs. <u>8,973</u>

CAPITAL RESERVE FUND

		<u>CONTRIBUTIONS</u>		<u>TRANSFERS FROM</u>		<u>TOTAL</u>	<u>OBLIGATIONS &</u>	<u>UNCOMMITTED</u>
		<u>GOP</u>	<u>USAID</u>	<u>GENERAL OPERATING FUND</u>	<u>INTEREST</u>	<u>RECEIPTS</u>	<u>EXPENDITURES</u>	<u>BALANCE</u>
FY - 1962	Rs.	2,680	96,000	Rs. 162,523	Rs. 634	Rs.261,837	Rs. 77,449	
FY - 1963		-	(800)	42,971	3,826	45,997	42,281	
FY - 1964		-	-	13,878	3,532	17,410	93,711	
FY - 1965		-	-	9,590	1,623	11,213	21,247	
FY - 1966		-	96,000	9,328	1,292	106,620	139,788	
FY - 1967		96,000	-	8,624	5,323	109,947	31,228	
TOTAL	Rs.	98,680	191,200	Rs. 246,914	Rs.16,230	Rs. 553,024	Rs.405,704	Rs.147,320

STATEMENT OF INCOME AND EXPENDITURES - CRL RUPEE FUNDS
For the Fiscal Year ended June 30, 1967 (Per CRL Records)

	RESEARCH AGREEMENT FUND	GENERAL OPERATING FUND	CAPITAL RESERVE FUND	TOTAL RUPEE FUND
Balance July 1, 1966	Rs. 405,341	Rs. 22,769	Rs. 71,763	Rs. 499,873
Less: Expenditures applicable to prior year obligation	(16,400)	(3,733)	(12,489)	(32,622)
Transfer from operating fund to Cap. Resv. Fund		(9,328)	9,328	
Adjusted balance July 1, 1966	Rs. 388,941	Rs. 9,708	Rs. 68,602	Rs. 467,251
Income				
Contribution by GOP for FY 1967	-	303,000	96,000	399,000
Contribution by ETH for FY 1967	2,809,000	303,000	-	3,112,000
Additional contribution by USAID/Pak	-	-	-	-
Interest earned on fixed deposits	44,826	11,926	5,323	62,075
Total available	3,242,767	627,634	169,925	4,040,326
Expenses (see Schedule 1) 1/	(3,168,651)	(610,036)	(31,228)	(3,809,915)
Balance	Rs. 74,116	Rs. 17,598	Rs. 138,697	Rs. 230,411
Transferred to Cap. Resv. Fund	-0-	(8,624)	8,624	
Balance, June 30, 1967	Rs. 74,116	Rs. 8,974	Rs. 147,321	Rs. 230,411

Total Fund Balance at June 30, 1967 represents:

Cash	Rs. 244,930
Advances to employees and contractors	40,491
Subtotal	Rs. 285,421
Less outstanding obligations at 6/30/67	(55,010)
Balance	Rs. 230,411

STATEMENT OF INCOME AND EXPENDITURES - CRL RUPEE FUNDS
For the Fiscal Year Ended June 30, 1967 (Per CRL Records)

- 1/ CRL treats as expenses applicable to the fiscal year only those unliquidated obligations as of June 30, which are liquidated prior to September 30. Unliquidated obligations as of June 30, which are liquidated after September 30, are treated as expenditures of the following fiscal year. Since valid FY 1967 obligations not paid at September 30, 1967 were Rs. 42,695 and the FY 1966 carryover was Rs. 28,485, the expenditures as shown in Exhibit B and Schedule 1 of Exhibit C are under-stated as compared with accrual basis figures as follows:

<u>June 30 obligations still unliquidated at September 30</u>	<u>1967</u>	<u>1966</u>	<u>NET</u>
Capital reserve fund	-	-	-
General operating fund	Rs. 15,856	Rs. 9,893	Rs. 5,963
Research agreement fund	<u>26,839</u>	<u>18,592</u>	<u>8,247</u>
	Rs. <u>42,695</u>	Rs. <u>28,485</u>	Rs. <u>14,210</u>

STATEMENT OF EXPENSES - CRL RUPEES FUNDS
 For the Fiscal Year Ended June 30, 1967 (Per CRL Records)

	RESEARCH AGREEMENT FUND	GENERAL OPERATING FUND	CAPITAL RESERVE FUND	TOTAL RUPEE FUND
<u>Personal Services:</u>				
Professional	Rs. 403,929	Rs. 31,669	-	Rs. 435,598
Technical & supporting	1,521,975	377,928	-	1,899,963
Consultant	13,684	-	-	13,684
Sub-total	Rs. 1,939,588	Rs. 409,657	-	Rs. 2,349,245
<u>Travel & Transportation of Persons:</u>				
In Pakistan	187,885	15,132	-	203,017
Outside Pakistan	194,213	32	-	194,245
Consultants	145,739	-	-	145,739
Sub-total	Rs. 527,837	Rs. 15,164	-	Rs. 543,001
<u>Transportation of Things (Shipp. & Clearance)</u>	Rs. 50,634	Rs. 11,732	-	Rs. 62,416
<u>Rent, Communication & Utilities:</u>				
Rent	73,505	334	-	73,839
Communication	3,285	14,456	-	17,741
Sub-total	Rs. 76,790	Rs. 14,790	-	Rs. 91,580
<u>Printing & Reproduction</u>	Rs. 10,063	Rs. 9,461	-	Rs. 19,524
<u>Other Contractual Services:</u>				
Repair	28,314	13,003	-	41,317
Others	80,941	18,509	Rs. 31,228	130,678
Sub-total	Rs. 109,255	Rs. 31,512	Rs. 31,228	Rs. 171,995
<u>Supplies & Materials:</u>				
Laboratory & Hospital	Rs. 136,696	Rs. 23,396	-	Rs. 160,092
Office & Janitorial	23,196	11,977	-	35,173
Research and animal feed	13,432	2,682	-	16,114
Fuel	7,037	5,227	-	12,264
Hospital food	41,139	20,001	-	61,140
Linen & Uniform	17,700	10,526	-	28,226

STATEMENT OF EXPENSES - CRL RUPEES FUNDS
For the Fiscal Year Ended June 30, 1967 (For CRI records)

	RESEARCH AGREEMENT FUND	FINANCIAL OPERATING FUND	CAPITAL RESERVE FUND	TOTAL RUPEE FUND
Educational	Rs. 945	Rs. 19		Rs. 964
Others	67,811	34,287		101,298
Sub-total	Rs. 307,156	Rs. 108,115		Rs. 415,271
<u>Equipment:</u>				
Laboratory & Hospital	93,076	5,266		98,342
Transport	-	-		-
Office	29,420	2,720		32,140
Foods (Permanent)	1,337	8		1,345
Others	23,495	1,561		25,056
Sub-total	147,328	9,555		156,883
Total	Rs. 3,168,651	Rs. 610,036	Rs. 31,228	Rs. 3,809,915

USAID/P (PROJECT NO. 391-11-510-138 - PAKISTAN-SEATO
CHOLERA RESEARCH LABORATORY)

EXHIBIT C
Schedule 2

COMPUTATION OF TRANSFERS FROM GENERAL OPERATING FUND TO
CAPITAL RESERVE FUND AS OF JUNE 30, 1967

Year-end Balance (FY 1966) attributable to NIH (see Exhibit C)	Rs. 9,708	
FY 1967 NIH contribution (see Exhibit E)	<u>303,000</u>	Rs. 312,708
FY 1967 GOP contribution (see Exhibit B)		<u>303,000</u>
Total contributions		Rs. <u>615,708</u>
Percent of contributions attributable to GOP (Rs. 303,000/Rs. 615,708)		49%
Balance of General Operating Fund at June 30, 1967 for purpose of computing transfers (see Exhibit C)		Rs. <u>17,598</u>
Percent of contributions attributable to GOP		49%
Transferred to Capital Reserve Fund (see Exhibit C)		Rs. <u>8,624</u>

USAID TRUST FUND EXPENDITURES FOR THE
CHOLERA RESEARCH LABORATORY (CRL)
From August 16, 1961 (Inception) to June 30, 1967

<u>PERIOD</u>	<u>AMOUNT 1/</u>
8/16/61 - 12/31/61	Rs. 117,879 <u>2/</u>
1/1/62 - 6/30/64	527,185
7/1/64 - 6/30/65	336,309
7/1/65 - 6/30/66	448,904
7/1/66 - 6/30/67	<u>549,881</u>
	Rs. <u>1,980,161</u>

- 1/ Consists of (a) direct USAID expenditures on behalf of the CRL, and (b) USAID costs for CRL housing, utilities, equipment maintenance etc.
- 2/ The bulk of these expenditures were for CRL's operational costs, including local salaries, furniture, and equipment. Such costs were also paid from Trust Funds up to January 1, 1962.

Distribution of Report

	<u>No. of Copies</u>
<u>USAID/P:</u>	
DD	1
PH	2
C&R	1
AD/C Rep/Dacca	52
<u>AID/W:</u>	
WESA/MGT	2
C/AUD	1
IGA/STATE	1
GOP (EAD)	10

PAKISTAN-SHATO CHOLERA RESEARCH LABORATORY

Seventh Meeting of the

DIRECTING COUNCIL

Dacca, East Pakistan - January 17-18, 1968

PRESENTATION OF APPENDICES TO

PERSONNEL REGULATIONS

31 March, 1967

TO : CRL Staff

FROM : Director *R.A.P.*SUBJECT : TERMS OF SALARY ADVANCE

1. Salary may be advanced to permanent CRL employees only for bona fide emergencies:
 - (a) to cover the expenses of emergency medical treatment of employee or his dependents;
 - (b) to cover funeral costs in case of the death of a dependent of an employee;
 - (c) to cover emergency situations which may occur from time to time and defined as such by the GOEP and other autonomous organisations, such as in the occurrence of a natural calamity.
2. Applications for salary advance must be requested in writing, together with justification, to the Executive Officer through the applicant's Section Chief and the Administrative Section via the Head, Personnel Management Branch. All requests must be verified before approval will be made. Collateral or security to cover the entire amount of the advance must be provided.
3. Only under unusual circumstances will an advance be made exceeding 15% of the annual salary of the employee making the request. These will require the personal approval of the Director after adequate justification.
4. The interest rate on approved emergency advances will be equal to the rates charged by local banks for similar loans. No interest rate will be charged if emergency advance is repaid within current month.
5. Repayment of the salary advance will be made by payroll deductions from the employee concerned. The period of time required to complete repayment will be determined by the Executive Officer. All repayments must be made within the current fiscal year.

This circular supersedes all prior regulations and amendments on subject of salary advance.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

MEMORANDUM

PGT/DP

TO : All CRL Employees
FROM : Director *R. A. V.*
SUBJECT : AMENDMENT TO PERSONNEL REGULATION
PARAGRAPH 3.2

Date : May 18, 1967

Effective May 15, 1967, paragraph 3.2 of the PSCL
Personnel Regulations is changed to read:

"Each appointment is probationary until such time as proof of satisfactory security, medical clearance and reference checks is received and until six months' continuous employment is completed from the date of joining. Period of probation may be extended based on standard of performance. During this probationary period an employee may be summarily dismissed if his performance of duty is not up to standard in any way. In no case will an incumbent attain permanency until informed in writing."

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

CRL CIRCULAR

PERSONNEL MANAGEMENT NO. 2

Date : 10 July, 1967

To : All Section Chiefs & Supervisors.
From : Patrick G. Talmon, 
Executive Officer
Subject : Employee Final Pay Release.

In introducing the new form Pers. No. 1 - "Employee Final Pay Release" all concerned are informed that henceforth any employee to be separated from CRL due to resignation or termination will be required to obtain the release order as per form enclosed. The form should be in duplicate and the person concerned will personally route it to the respective Section Chief and the others concerned.

Before the final payment is made the employee concerned must obtain all signatures in the form and produce the same to Finance Branch for necessary payment.

PAKISTAN SEATO CHOLERA RESEARCH LABORATORY

EMPLOYEE FINAL PAY RELEASE

Date: _____

EMPLOYEE'S NAME:	SECTION:	SEPARATION DATE:
SECTION CHIEF	RELEASE BY	
SUPPLY MANAGEMENT BRANCH		
LIBRARY		
TRANSPORT MANAGEMENT BRANCH		
PERSONNEL MANAGEMENT BRANCH		
FINANCE MANAGEMENT BRANCH		
REMARKS:		

- N.B. (1) Until the employee gets release by the offices as above, he will not be allowed to draw his dues, if any.
- (2) The form should be filled in duplicate. One copy is to be retained by Finance Branch and the second copy duly certifying that final payment has been made by Finance Branch, should be forwarded to Personnel Branch for record.

PAKISTAN SEATO CHOLERA RESEARCH LABORATORY.

CRL CIRCULARS.

PERSONNEL MANAGEMENT No. 3

To : PSCRL employees.

August 29, 1967.

From : Dr. R. A. Phillips,
Director, PSCRL.

K. Howe for Dr. R. A. Phillips

Subject: Reorganisation of employees structure.

This circular supersedes Reorganisation Circular No.20 dated January 30, 1967, and is in continuation of CRL Memorandum No.10 dated November 3, 1966, classifying the remaining jobs in PSCRL. Any adjustment arising out of this classification shall be retroactive to July 1, 1966. Each employee will be intimated in writing of his/her position in the new classification and grade.

<u>JOBS CLASSIFIED</u>		<u>RANGE OF PAY</u>	
12.	Branch Heads	Grade F	thru E
13.	Specialist	G	" F
14.	Private Secretary	G	" F
15.	Administrative Assistant	I	" H
16.	Administrative Clerk	L	" J
17.	Steno-Typist/Clerk	K	" I
18.	Senior Maintenance Technician	H	" G
19.	Junior Maintenance Technician	J	" I
20.	Maintenance Assistant	L	" K
21.	Junior Maintenance Assistant	N	" M
22.	Telephone Operator-cum-Receptionist	K	" J
23.	Despatcher	K	" J
24.	Driver	L	" K
25.	Caretaker	L	" K
26.	<u>UTILITY SERVICES:</u>		
	(a) Tailor	L	
	(b) Loader	O	" M
	(c) Messenger	O	" M
	(d) House Cleaner	O	" M
	(e) Gardener	O	" M
	(f) Security Guard	O	" M

Reorganisation of employees structure.

August 29, 1967.

<u>JOBS CLASSIFIED.</u>	<u>RANGE OF PAY</u>
27. Statistical Assistant	J thru H
28. Interpreter	L
29. Pharmacy Incharge	J " I
30. X-Ray Technician	J
31. Diet Clerk	K " J
32. Cook.	O " L
33. House Keeper	K
34. Wardboy (HQ)	M
35. Laundryman	N
36. Hospital Assistant (Matlab)	O " M
37. Wardboy (Matlab)	O " M

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

CRL CIRCULAR

PERSONNEL MANAGEMENT NO.4

TO : All PSCRL Employees.

January 5, 1968.

FROM : Director, PSCRL. *R.A.P.*

SUBJECT: Classification/Reorganization of Employee's structure.

In continuation of Personnel Management Circular No.3 dated August 29, 1967, the following jobs have been either classified or reorganized. The remaining jobs classified in CRL Memorandum No.10 dated November 3, 1966, and Personnel Management Circular No.3 dated August 29, 1967 shall remain unaffected. The personnel affected out of this Circular shall be intimated in writing of his/her position and grade in the new structure to be effective July 1, 1967.

<u>Jobs Classified</u>		<u>Range of Pay</u>	
1. Section Chief	...	C thru	A
2. Research Associate	...	E "	D
3. Research Technologist	...	G "	F
4. Research Veterinarian	...	F "	D
5. Veterinarian	...	H "	F
6. Animal Caretaker	...	K "	I
7. Assistant Animal Caretaker	...	L "	K
8. Animal Handler	...	N "	M
9. Pharmacy Assistant	...	L "	K
10. Pharmacy Attendant	...	M.	
11. Pharmacy Helper	...	N.	
12. Senior Staff Nurse	...	I "	H
13. Assistant Staff Nurse	...	J.	
14. Cleaner Hospital	...	O "	N
15. Head Librarian	...	F "	D
16. Librarian	...	H "	F
17. Assistant Librarian	...	I "	H
18. Library Attendant	...	M "	L
19. Branch Head	...	F "	D
20. Special Assistant	...	G "	F
21. <u>Utility Services</u>			
(a) Loader	...	O "	N
(b) Messenger	...	O "	N
(c) House Cleaner	...	O "	N
22. Property Maintenance Supervisor	...	F "	D
23. Electronic Specialist Medical	...	F "	E
24. Automative Maintenance Specialist...		G "	F

PERSONNEL MANAGEMENT NO.4

25.	Instrument Maker	...	H thru G
26.	Workshop Foreman	...	I " H
27.	Foreman Refrigeration	...	I " H
28.	Refrigeration Mechanic	...	K " J
29.	Maintenance Assistant	...	K " J
30.	Auto Equipment Technician	...	K " J
31.	Auto Mechanic	...	M " K
32.	Carpenter Cabinet Maker	...	L " K
33.	Plumber Pipe Fitter	...	L " K
34.	Workshop Assistant	...	N " L
35.	Field Surveillance Assistant (Matlab)...	J.	
36.	Field Office Assistant(Matlab)	N " L	
37.	Wardmaster (Matlab)	J " I	
38.	Ward Attendant (Matlab)	O " M	
39.	Laundryman (Matlab)	O " N	

The following jobs already classified in Personnel Management Circular No.3 dated August 29,1967 have been removed:

1. Junior Staff Nurse
2. Specialist
3. Senior Maintenance Technician
4. Junior Maintenance Technician
5. Junior Maintenance Assistant
6. Hospital Assistant (Matlab)
7. Wardboy (Matlab)
8. Peon (Rayer Bazar).

CRL CIRCULAR

PERSONNEL MANAGEMENT No. 6

To : Supervisory Personnel

January 11, 1968.

From : Director, PSCRL. *R.A.P.*

Subject: PERSONNEL PROCEDURES ON POSITION CLASSIFICATION,
POSITION ESTABLISHMENT, APPLICATION OF STANDARDS,
PROMOTIONS & FILLING OF VACANCIES AND INTER-SECTION
TRANSFER.

1. POSITION CLASSIFICATION:

Classification is grouping positions by the kind of work, level of difficulty and responsibility and the qualifications required to do the work. In classification it is not the employee but the position which he occupies that is classified.

The Personnel Management Branch classifies the proposed position according to existing standards and establishes starting grade, salary and title. If the proposed job description does not clearly fall within existing classification standards, the Personnel Management Branch will draft appropriate additional standards for review by the Section Chiefs and approval by the Director. If the level of responsibility and duties of a position are significantly altered, a revised job description is submitted to the Head, Personnel Management Branch. If upon review the degree in responsibility is sufficient to require a change in classification, the proposal is processed in the same manner as a request to establish a new position.

Positions are classified on the basis of the duties and responsibilities involved in the position and the qualification required to perform the work successfully. The classification of positions will therefore, depend upon the level or degree of difficulty and responsibility of work, in addition to the education, training, abilities and experiences the incumbent must possess to carry out the assigned duties to him.

Existing job descriptions should be reviewed periodically (not more than once a year nor less than once every three years) to assure that they accurately reflect the work and level of responsibility borne by the employee.

II POSITION ESTABLISHMENT:

There are two steps in establishing a position: one, the classification of the position, and two, the selection of the incumbent from either among the present staff or through outside recruitment.

Section Chiefs determine and make known to the Director their requirements for personnel for the ensuing year. Initially these needs are described and approved through the budgetary process. During the operating year as new positions are required due to unforeseen program changes the Section Head concerned prepares job descriptions of the duties to be performed and the specific qualifications required. Job descriptions are then forwarded

to the Executive Officer through the Administrative Officer and the Personnel Management Branch for processing.

To complete the establishment of the positions, financial clearance is requested, and the job descriptions are routed to the Executive Officer and presented to the Section Chiefs meeting for approval.

III APPLICATION OF STANDARDS:

The purpose of application of standards is to ensure that the hiring and promotions of personnel in CRL are carried out systematically and in full consideration of all the factors involved.

When a vacancy exists in any permanent full-time or part-time position, whether through the establishment of a new position or through the departure from the position of the present incumbent, the Section Chief has sole responsibility for initiating action to fill the position. He should first review the necessity and desirability of continuing the position in the light of existing and projected workload, possible budget limitations, and the changing program of the Section. If it is his decision to leave the position vacant, he should inform the Head, Personnel Management Branch. If he wishes to change the nature of the position, he should submit a draft of the revised position description to the Personnel Management Branch for processing. Should he prefer to fill the position as it then exists, he should request the Personnel Management Branch, in writing, to locate qualified candidates for interview. The final selection from among the candidates is the sole responsibility of the Section Chief. Therefore, as the first step in seeking candidates to fill a vacancy, the Personnel Management Branch shall review the records of present employees who appear to qualify and provide the Section Chief with the personnel folders of these employees for his review. If the Section Chief chooses one of these candidates the Personnel Management Branch will arrange for a discussion with the employee and between the Section Chiefs concerned to determine the employee's interest in the position and the details of the transfer.

Selection to fill vacancies will be based solely upon merit and according to defined standards. Candidates must meet the essential requirements of the position to be filled.

In evaluation of a position and grade it is important to consider the following:

1. Education - Training.
2. Past and present experience.
3. Past and present performance including outstanding performance or achievements.
4. Potential for advancement.

In higher positions, an important factor for consideration is the employee's independent performance in addition to the required qualifications. Recruitment of personnel should be according to established procedures and in conformity with Standards. In establishing a new position the Personnel Management Branch will review and evaluate the position according to Standards. If the position requested is not in the existing classification then this would have to be classified by Personnel Management Branch with approval of the Section Chiefs.

All personnel actions of recruitment, promotion or filling in of vacancies created by resignation, termination, dismissal, etc., should be processed to the Executive Officer through Administrative Officer and Personnel Management Branch.

IV. PROMOTIONS & FILLING OF VACANCIES.

There will be an annual promotion review at the beginning of each fiscal year to consider employees who are recommended and are qualified for promotions by their Section Chiefs.

A promotion may take place with the establishment of a new position, reassignment, vacancy created by a termination, dismissal or resignation of an employee or only when the duties and responsibilities have changed to such an extent as to warrant a higher classification.

In the filling of a vacancy no restriction shall be made on present CRL employees that are not placed on outside applicants.

If the requirement of a position is such that the requirements are beyond the lowest level of grade in the job description it is possible for a Section Chief to request the hiring in a higher grade and the job description should be specified accordingly. Any hiring above the minimum grade of that position should be approved in the Section Chiefs meeting. This procedure is to be applied only in exceptional cases.

According to CRL Personnel Regulations, first preference for filling vacancies is by promotion from within. Outside recruitment will be undertaken only when qualified candidates are not available from within.

Recommendations by the Section Chiefs for promotion will have to be justified in writing with new job descriptions. In case of annual promotions, proposals for promotion will be first submitted to the Executive Officer through the Administrative Officer to the Personnel Management Branch, the proposals will then be submitted for discussion and approved in a Section Chiefs meeting. Recommendations to fill positions as they become vacant should be forwarded to the Executive Officer through the Administrative Officer to the Personnel Management Branch for review and evaluation against Standards. In making such recommendations, tenure of service should not be considered as a basis for promotion but rather on the job experience as defined in the Standards together with a description of the increase of the duties and responsibilities and potential to

perform the same successfully. In identifying the best qualified candidates to be considered for promotion, the candidate's potential for assuming broader responsibilities and duties than those currently held should be carefully examined.

It should be noted that if the employee is doing his job satisfactorily, this does not in itself qualify him for a promotion, but will be the basis for granting an annual within-grade increment on the date of his appointment or date of latest promotion and as defined in PSCRL Personnel Regulations. Increments are one-step advance within a grade. Promotions are advances from one grade to the next higher grade. Any increase to the next higher grade must give the employee a pay increase neither less nor the same than the next salary increment of the old grade.

The selecting officials and those concerned in promoting a candidate must share the responsibility for its effective operation in order to achieve the greatest possible benefit to the CRL. Employees are responsible for developing their skills and abilities in their present jobs so that Section Chiefs may have the opportunity to appraise their potential for future advancement.

Promotions and vacancies will be displayed on the Notice Board in the Personnel Office and copies will be forwarded to the Section Chiefs for display in their Sections. These notices will be publicized for a minimum of 3 days.

V.. INTER-SECTION TRANSFER.

For inter-section transfer the Section Chiefs concerned must mutually agree for such a transfer in writing and it should be processed through Personnel Management Branch.

A transfer will not result in a vacancy unless processed in the same procedure as with the establishment of a new position.

No transfer or any other personnel action will come into effect until issued officially by Personnel Management Branch.

PAKISTAN SEATO CHOLERA RESEARCH LABORATORY
Institute of Public Health,
Mahakhali, Dacca-12.

CRL CIRCULAR

PERSONNEL MANAGEMENT No.5

To : All PSCRL Personnel.
From . : Director, PSCRL. *R.A.S.*
Subject : Working hours of Car Drivers.

As approved in the Section Chiefs Meeting the normal working hours of Car Drivers will be 48 hours instead of 60 hours ~~a~~week effective January 15, 1968.

Specific instructions as to the schedule of drivers will be determined by the Chief, Administrative Section.

PAKISTAN-SHATO CHOLERA RESEARCH LABORATORY

Seventh Meeting of the
DIRECTING COUNCIL

Dacca, East Pakistan - January 17-18, 1968

REVIEW OF CRL BUDGET PLAN FOR 1968-69

PROPOSED PSCL BUDGET
FISCAL YEAR 1969

July 1, 1968 to June 30, 1969

<u>HEADS OF ACCOUNTS:</u>	CRL Operating Fund Rupee	UK Fund Pound	<u>NIH Research Agreement</u>	
			Rupee	Dollar
<u>PERSONAL SERVICES:</u>	<u>565,000</u>	<u>5,000</u>	<u>2,280,000</u>	<u>72,200</u>
Professional	65,000		450,000	
Technical & Supporting	500,000		1,780,000	
Consultant	-		50,000	
<u>TRAVEL & TRANSPORTATION OF PERSONS:</u>	<u>22,000</u>	<u>250</u>	<u>715,000</u>	<u>6,000</u>
In Pakistan	6,000		300,000	
Outside Pakistan	1,000		165,000	
Consultant	15,000		250,000	
<u>TRANSPORTATION OF THINGS:</u>	<u>16,000</u>	<u>250</u>	<u>66,000</u>	<u>3,200</u>
Shipping & Clearance	16,000		66,000	
<u>RENT, COMMUNICATION & UTILITIES:</u>	<u>19,000</u>	<u>-</u>	<u>121,000</u>	<u>900</u>
Rent	3,000		110,000	
Communication	16,000		11,000	
<u>PRINTING & REPRODUCTION:</u>	<u>11,000</u>	<u>-</u>	<u>66,000</u>	<u>200</u>
<u>OTHER CONTRACTUAL SERVICE:</u>	<u>44,000</u>	<u>500</u>	<u>143,000</u>	<u>11,000</u>
Repair	28,000		70,000	
Other	16,000		73,000	
<u>SUPPLIES & MATERIALS:</u>	<u>132,000</u>	<u>4,500</u>	<u>350,000</u>	<u>7,100</u>
Laboratory & Hospital	32,000		150,000	
Office & Janitorial	27,000		30,000	
Research Animal & Feed	12,000		25,000	
Fuel	5,000		20,000	
Hospital Food	22,000		50,000	
Linen & Uniforms	12,000		25,000	
Educational	3,000		5,000	
Others	19,000		45,000	
<u>EQUIPMENT:</u>	<u>17,000</u>	<u>4,500</u>	<u>165,000</u>	<u>4,400</u>
Laboratory & Hospital	6,000		75,000	
Transport	-		10,000	
Office	6,000		60,000	
Books	-		5,000	
Other	5,000		15,000	
<u>TOTALS:</u>	Rs. <u>826,000</u>	<u>£15,000</u>	Rs. <u>3,906,000</u>	\$ <u>105,000</u>

JUSTIFICATION FOR PROPOSED BUDGET FOR
FISCAL YEAR 1969

The proposed PSCRL Budget for F.Y. 1969 is based on the budget for F.Y. 1968 submitted to and approved by the 6th Directing Council Meeting in March, 1967. The proposed F.Y. 1969 budget is more or less a continuation of F.Y. 1968 budget projected estimations of necessary funds required to continue the present level of research with due allowance given to implement the recommendations of the Technical Committee, that are planned for the coming fiscal year. The proposed budget includes due allowances for normal year to year increases in the operating cost of the PSCRL, such as increases in prices for supplies, equipment, contractual services, etc.

OPERATING FUND

No major increase in the Operating Fund is requested. Only normal increase in supporting cost as a result of increased volume of expenditure in Research has been requested.

PERSONAL SERVICES:

This figure is based in part of the total salary cost of the projected pay-roll for F.Y. 1969 based on present level of staff with an usual allowance of annual increments, promotions, charge allowance, etc. of administrative and supporting staff. Allowance has been made also for cost of overtime and employers contribution to the PSCRL Staff Provident Fund estimated at 10% and 6% respectively on the basic pay-roll.

TRAVEL & TRANSPORTATION OF PERSONS:

A small increase has been requested to cover the additional expenses of the increased number of Travelling Staff within Pakistan.

TRANSPORTATION OF THINGS:

To handle the increase freight cost of supplies of projected expansion and new cholera patient treatment program introduced outside Dacca, a small increase in the budget has been felt quite justified.

.../-

RENT, COMMUNICATION & UTILITIES:

The volume of increased communication, payment of residential telephone bills of physicians related to patient care duties, a nominal increase is necessary. Provisions have been made for the installation of an inter-communication system for better functioning of the Laboratory.

PRINTING & REPRODUCTION:

A small increase is requested to cover the additional cost of increased volume of printing of forms, etc.

OTHER CONTRACTUAL SERVICES:

To meet the increased cost of servicing & maintenance of U.K. cars and also planning to procure spares for the cars locally without bringing extra pressure on the dollar budgets an increased amount is also necessary. Allowance is also made for normal maintenance of the portion of building of the Institute of Public Health now under occupation by PSCRL and the PSCRL field hospital wing attached to the Health Center at Matlab.

SUPPLIES & MATERIALS:

A nominal increase is requested to cover the cost of increased volume of supplies from local sources and to avoid extra pressure on the dollar budgets.

EQUIPMENT:

An increase is requested for replacement of old furniture and office quipment.

NIH RESEARCH AGREEMENT

As with the Operating Fund, there is no substantial increase requested for the NIH Research Agreement. Each of the budget line items represents more or less a nominal increase of 10% over the F.Y. 1968 budget. The proposed increase in the dollar portion of the Research Agreement is also a nominal 10%. The followings are the itemised justifications for the increases. :

RUPEE PORTION

PERSONAL SERVICES:

In addition to the projected annual pay-roll, provision is also made for the following additional costs :

- (a) 10% provisions over the annual base pay for overtime.
- (b) 6¼% provisions over the annual base pay for employers share of contribution to the PSCRL Staff Provident Fund.
- (c) Estimated increase of payment of annual increments, allowances for contract personnel, payment of cost of annual leave according to the PSCRL revised leave regulations.

TRAVEL & TRANSPORTATION OF PERSONS:

An increase of 10% over the F.Y. 68 budget provision has been requested for several reasons, namely (1) increase of hire charges of country boats for Matlab Project from Rs.75/- each boat per month to Rs.100/- per month, (2) extra travel to Chittagong for facilitating clearance of supplies & equipment, (3) occasional travel within Pakistan to procure supplies or equipment, and (4) travel by scientific staff to both wings of the country for collection of specimen and scientific data for research work.

TRANSPORTATION OF THINGS:

A nominal increase of 10% over the F.Y. 68 budget is requested to cover the increased volume of shipping and clearing and also possible future shifting of vaccine trial area from Matlab to some other suitable area in accordance with recommendation of the 7th Technical Committee Report.

RENT, COMMUNICATION & UTILITIES:

An increase of 10% over the F.Y. 68 budget is requested to cover the possible payment of rentals and increased volume of communication services for possible future shifting of vaccine trial area from Matlab to some other suitable area in accordance with recommendation of the T.C. Report for F.Y. 1967.

PRINTING & REPRODUCTION:

To cover the increased cost of printing & binding of various studies forms & census reports for the new vaccine trial area a nominal increase of 10% over the F.Y. 68 budget is requested.

OTHER CONTRACTUAL SERVICES:

As per recommendation of the T.C. Report for F.Y. 1967 to improve washing facilities, Animal colony and maintenance area a 10% increase over the F.Y. 68 budget has been requested.

SUPPLIES & MATERIALS:

A nominal increase of 10% over the F.Y. 68 budget is requested.

EQUIPMENT:

A nominal 10% increase over the F.Y. 68 budget is requested to cover the cost of equipment such as Kerosine Incubators for the Bacteriology Section, locally available heavy duty tools and machines for the maintenance shops, and the furnishing of the four storied building to be constructed hopefully in near future. Provision for replacement of old furniture and office equipment has also been made.

DOLLAR PORTION

A nominal increase of 10% is requested.

U.K. FUND

It is requested that the contribution by the U.K. be increased to £15,000. It should be noted that the £10,000 made available to this laboratory in F.Y. 1967 was exhausted during the first 9 months of the British fiscal year.

The need for extra funds occur mainly under supply and equipment headings in the budget.

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PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Seventh Meeting of the
DIRECTING COUNCIL

EXTENSION OF PSCRL-GOP AGREEMENT

DC 7/9

UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT

Cable: USAIDPAK

Alfalalah Building
The Mall, Lahore.

21 Feb. 1967

Mr. I. A. Khan, S.Q.A., C.S.P.
Secretary
Economic Affairs Division
President's Secretariat
Government of Pakistan,
Islamabad, Pakistan.

Dear Mr. Khan:

The Directing Council of the Pakistan-SEATO Cholera Research Laboratory recommended during their meeting on 9 and 10 March, 1966, that the existing Agreement between the United States of America and the Government of Pakistan governing the Pakistan-SEATO Cholera Research Laboratory be extended for a period of not less than three years.

Accordingly, I propose that Par.J.2 of the Agreement be amended to read as follows:-

"2. This Agreement will terminate June 30, 1970. Negotiations with respect to extension of this Agreement beyond this date will begin not later than June 30, 1969 based on recommendations of the Directing Council. Any party to the Agreement may terminate its participation upon twelve months' written notice to all other parties to the Agreement."

You may indicate the acceptance of the Government of Pakistan by signing and returning a copy of this letter.

Sincerely yours,

Sd/-
Maurice J. Williams
Minister-Director.

Sd/-
Concurred: A. Z. Faruqui, C.S.P.,
Deputy Secretary.

Date: 29th June, 1967.