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REPORT OF PLANNING CONSULTANTS

ON

PROPOSED FIVE YEAR DEVELOPMENT PLANS

OF

NATIONAL TROPICAL MEDICINE CENTERS

(SEAMEC CENTRAL CO-ORDINATING BOARD FOR TROPICAL MEDICINE)  
"

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on  
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of  
NATIONAL TROPICAL MEDICINE CENTERS  
(SEAMEC CENTRAL CO-ORDINATING BOARD FOR TROPICAL MEDICINE)  
9 - 12 October 1968.

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## I INTRODUCTION

The Southeast Asian Ministers of Education Council (SEAMEC) was formed in 1966 to promote regional cooperation in education among the countries of Southeast Asia. A Secretariat (SEAMES) was established to carry out the work of the Council and to coordinate the development of project activities. Seven countries are working together under SEAMEC (Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand and ~~S~~Vietnam) and it is hoped that other SE Asian nations will join with these soon.

Since the nations of Southeast Asia are hampered in their economic and social development in many ways by the existence of indigenous tropical diseases, contributing to a low standard of health, it was to be expected that health and tropical medicine came under review when education and manpower problems and needs were explored by SEAMES with a view toward developing programs which would meet these needs. Careful thought was given to the desirability of establishing a Regional Center for Tropical Medicine to focus on the training and research needs of the region in this particular vector. The matter was referred to a SEAMES Task Force made up of tropical medicine specialists from the member countries and from the U.K. and the U.S. for thorough study.

Finally it was proposed to SEAMEC and approved by that body to implement a program of health and medical research and training not through a single regional center, but through a cooperative effort of existing national centers. There were two important reasons for this decision: (1) the range of endemic diseases in

the region is so large that it would be difficult and expensive to create the facilities and recruit the staff required to deal with the entire range in a single center; and, (2) in several of the countries there are well-established national programs in medicine and health and it seemed prudent to draw upon all these resources and facilities instead of attempting to focus on just one center.

The implementation of this decision required two major developmental tasks; namely, (1) the creation of mechanisms and the planning of programs whereby the national centers could work together, coordinate their efforts, support each other, and jointly work toward the regional program objectives; and (2) the identification of development requirements of the individual centers to enable them to carry out their regional roles effectively, and the procurement of financial support for meeting these development needs both from within and outside the region. Progress with these two tasks is described in the sections which follow.

#### Objective

The long-term objective established for the SEAMEC Regional Program in Tropical Medicine is to improve the health and standard of living of the peoples of Southeast Asia. This cannot be achieved unless the various disease problems are solved, especially the endemic tropical diseases which are now a drag on the development of the region. The aim of the regional program is to assist this major task by training specialists and scientists at the post-graduate level, and by developing, through research, as much useful information

as possible, leading to the successful control and/or eradication of these diseases. It is expected to accomplish this objective by pooling the resources of the participating countries in a cooperative endeavor to develop and upgrade the research and training capabilities of the existing facilities in these countries. Furthermore, it is hoped to minimize waste in duplicating programs and activities by promoting effective regional cooperation among the participating national centers.

#### Coordination and Cooperation

The first of the developmental tasks mentioned above has been dealt with quite effectively. A Central Coordinating Board was established consisting of the heads of the participating national centers. This Board (CCB) determines policy and approves programs and activities. Its work is carried out by a Central Office set up in Bangkok at the University of Medical Sciences (Faculty of Tropical Medicine) and staffed by a small secretariat working under the direction of the Secretary-General of the CCB, who is also Dean of the Faculty of Tropical Medicine at the host University. The CCB meets periodically to review programs and plan future activities.

When the Board was first established, only four countries (Thailand, ~~Vietnam~~, Malaysia, and the Philippines) were involved. Indonesia joined the program late in 1966; Laos started participation in 1967; and in 1968 SEAMEC country participation became complete with the affiliation of Singapore as an interim member (not desiring full participation at the moment). The units designated as the cooperating national centers are as follows:

INDONESIA	Faculty of Medicine, University of Indonesia, Djakarta
LAOS	Central Laboratory for Public Health, Vientiane
MALAYSIA	Institute for Medical Research, Kuala Lumpur
PHILIPPINES	Institute of Hygiene, University of the Philippines, Manila
SOUTH VIETNAM	Pasteur Institute of Vietnam, Saigon
THAILAND	Faculty of Tropical Medicine, University of Medical Sciences, Bangkok.
SINGAPORE	Undesignated - interim member status

The regional activities through which cooperation in fostered include the following:

1. Regional seminars. At least one regional seminar on a major tropical medicine topic will be held each year, supplemented by specialised seminars which may be organized as the need arises. These seminars serve as a forum for closer contact among scientists and research workers from within and outside the region. As of **September, 1968**, four seminars have been held under the auspices of the CCB.

2. Regional teaching and training. Eventually each national center will offer formal training in at least one major subject of Tropical Medicine to students and candidates from the region. It is proposed to have available through the JCB and SEAMES scholarships for the member countries to send trainees to these courses.

During the initial period while only a few of the centers can offer regional training with existing facilities, a limited number of scholarships is available. Nonetheless, a Diploma course in Tropical Medicine and Hygiene has been conducted at the Faculty of Tropical Medicine in Bangkok with regional participation under CCB sponsorship for two successive years (1967 and 1968), and in 1968 students from the region were admitted to the Master's Degree program in Public Health and Hygiene offered by the Institute of Hygiene at the University of the Philippines, with CCB approval. The Institute of Medical Research in Kuala Lumpur has been authorized by the Board to conduct a 24-week postgraduate diploma course in Applied Parasitology and Entomology starting if possible in July, 1969; and the Faculty of Medicine at the University of Indonesia has CCB approval to offer a 9-month course leading to a Diploma Science degree in Nutrition starting February, 1970.

3. Research grants. Grants from the CCB are offered to the staff members of the participating national centers for financial assistance with approved research projects. Specific guidelines and criteria for the grants have been adopted by the Board and all research projects must be approved finally by the Board. The major purpose of this activity is to encourage the research interests of personnel in the centers, stimulating them to continually add to the knowledge in the field. At the same time the research activities are selected so as to have an impact on the medical problems of the region. Available funds have limited

the grants to no more than \$10,000 a year to each center, but this program now in its second year is considered to be quite successful. The Board hopes to increase the amount of funds for research grants as new sources of funding are developed.

4. Exchange of personnel. Funds have been provided by the CCB to encourage programmed exchange of personnel. The purpose of this activity is to establish broader acquaintance with the health and medical programs in the region and to encourage use of expertise available in the region. So far eleven persons have participated in this exchange program, some for observation and visits only; others to lecture or otherwise participate in the program of the visited center.

5. Clearing house. A central library of information and data, and specialised publications is maintained at the Central Office of the CCB for use by participating centers. It is planned to develop the clearing house function to catalogue, translate into English, publish, and distribute information concerning the research, service and training activities in the **Southeast Asia region.** Such information and data will be exchanged also with institutions and agencies outside the region.

6. Consulting services. Consulting services are provided for the national centers by the CCB Central Office in three ways: (1) under the exchange of personnel arrangement whereby expertise is borrowed from a neighbouring center; (2) by visits of the Central Office staff; and (3) by arranging to borrow expertise from outside the region. It is the explicit policy of the Board

for the Central Office not to become involved in the activities or the planning work of the national centers unless it is specifically invited to do so

7. Budget for cooperative activities. The expenditures for the Regional activities sponsored by CCB for the first two years of operation, and the projected levels of expenditure for the next five years are shown in the following Table:

TABLE I  
Current and Projected CCB Budget for Regional  
activities (Shown in thousands US \$)

<u>Item</u>	<u>1967-68</u>	<u>68-69</u>	<u>69-70</u>	<u>70-71</u>	<u>71-72</u>	<u>72-73</u>	<u>73-74</u>
Central Office expenses		28.4	28.0	29.0	29.0	30.0	30.0
CCB meetings		9.6	12.0	12.0	12.0	12.0	12.0
Regional seminars		15	15.0	18.0	18.0	20.0	20.0
Regional teaching		75	190.0	199.0	204.0	204.0	204.0
Exchange of personnel		20	20.0	22.0	22.0	24.0	24.0
Research grants		60	130.0	130.0	130.0	130.0	130.0
Consultants		17	10.0	10.0	10.0	10.0	10.0
Publications and Clearing House: Fund raising		25	20.0	20.0	15.0	15.0	15.0
Total		250	425	440	440	445	445

THE NATIONAL CENTERS

The second major developmental task mentioned in the introduction section of this paper has proved to be extremely difficult; namely, the identification of the special development needs of each center to enable it to carry out its regional role effectively.

The first round of planning was not successful. The Central Office of the CCB asked each center to prepare 5-year development plans for submission to SEAMEC at the February 1968 meeting of the Council. These turned out to be primarily a projection of development needs to expand and upgrade the regular programs of the various centers without particular reference to the regional program. In other words, the centers reported the development needs which existed before the regional program came into being and which were not affected materially by the regional plans. For the five centers cooperating at that time (Laos and Singapore not included) the total cost of the development plans which were submitted exceeded US \$ 18,000,000. Furthermore, when the separate plans were reviewed by a team of planning consultants assembled by the Secretary-General of the CCB, it was found that the submissions were not realistic in terms of available staff and supporting facilities, that they were not effectively related to other aspects of national development planning, and that they were generally over-ambitious.

At the third meeting of the CCB held in Manila in December, 1967, specific regional roles for each of the centers were identified. These were subsequently reviewed at the fourth meeting of the Board in Djakarta in June 1968, and certain modifications were requested by some of the centers and approved by the Board. The specialisations which were finally agreed upon are as follows:

<u>National Center</u>	<u>Regional Specialisations</u>
Faculty of Medicine, University of Indonesia	Nutrition and radio isotopes
Central Laboratory for Public Health - Vientiane	Public Health and helminthology
Institute for Medical Research, Kuala Lumpur	Applied Parasitology and Entomology; and Medical and Health Laboratory Technology
Institute of Hygiene, University of the Philippines	Public Health and rural medicine
Faculty of Medicine University of Singapore	Urban health & medicine and Family planning
Pasteur Institute of Vietnam, Saigon	Plague and enteric infections
Faculty of Tropical Medicine, University of Medical Sciences, Bangkok.	General tropical medicine and hygiene, and Tropical Pediatrics
* In collaboration with the Faculty of Tropical Medicine, Bangkok.	

re-do their plans, indicating specifically the needs and requirements for carrying out effectively the regional specialisations agreed to by the CCB. Furthermore, the centers were advised to take into account the following items in drawing up their plans:

1. Make sure that indicated needs are consistent with the aims and the scope of the regional program to be offered.
2. Plans should be realistic in terms of available trained personnel to operate the programs.
3. Plans for the national centers should be related to overall national development planning and to planning in other sectors.
4. Development plans should avoid overlapping of functions of other national agencies and institutions involved in health and medical programs.
5. Plans should be consistent with projected availability of resources for supporting the plans; i.e., consider the long-range potential for eventual complete local support.

Planning consultant assistance was provided those centers requesting such help in preparing the new submissions.

The revised development plans were submitted by four of the national centers in time for review by the CCB Planning Consultant Group early in October 1968. Laos, Singapore and Vietnam did not prepare plans. Laos is not prepared now to take on a regional role and will for a time collaborate with other centers as resources and

facilities are gradually developed in the assigned specializations. Because of the special circumstances in Vietnam, the Pasteur Institute is postponing development planning for at least a year in order to deal with the national center needs more realistically. At the present time, Singapore is an interim member and will not expect to submit development plans until in a position to assume the status of full membership.

II

NATIONAL CENTER FIVE-YEAR PLANS

Requirements

The 5-year total requirements indicated by the four centers for effectively implementing the tropical medicine programme as distributed by CCB agreements were summarized and consolidated for presentation to the planning consultants as follows:

(See Table II).

TABLE II

Requirements for Implementing National  
Center Regional Programs  
(Shown in thousands U.S.\$)

<u>Center</u>	<u>Building</u>	<u>Equip- ment</u>	<u>Staff</u>	<u>Scholar- ships*</u> (Regional only 5 years)	<u>Faculty Develop- ment</u>	<u>Main- tenance</u>	<u>Books</u>	<u>Research</u>	<u>Prep. of Land</u>	<u>Total</u>
Faculty of Medicine, Uni- versity of Indonesia	2,300	227	150	460.4	-	100	40.5	100	-	3,377.9
Institute of Medical Research Kuala Lumpur	1,184	114	1,156	2,005	-	911.7	32	-	68	5,470.4
Institute of Hygiene, Univer- sity of Philippines	200	250	97.6	72	100	-	71.2	-	-	728.8
Faculty of Tropical Medicine- Bangkok	775	1,085 (includes main- tenance)	-	120	-	-	-	160	-	2,140
TOTALS	4,459	1,676	1,403.6	2,465.4	110	1,011.7	143.7	260	68	11,786.1

Note:

\* Scholarships for sending nationals abroad for training which will equip them for regional work will also be needed. These have not yet been assessed by the National Center but will probably be for 3 years at \$ 240/month plus \$ 1,200 fares.

EXTERNAL ASSISTANCE REQUIRED

Subtracting from the indicated requirements the amounts which the host country is prepared to provide or underwrite, the amount of external assistance needed to implement the development plans is shown in Table III. (Table III).

TABLE III  
 AMOUNT OF EXTERNAL ASSISTANCE NEEDED  
 BY THE NATIONAL CENTERS TO IMPLEMENT THEIR REGIONAL ROLES  
 (Shown in Thousands U.S.\$)

<u>Center</u>	<u>Building</u>	<u>Equip- ment</u>	<u>Staff</u>	<u>Scholar- ships</u>	<u>Faculty Develop- ment</u>	<u>Main- tenance</u>	<u>Books</u>	<u>Research</u>	<u>Prep. of Land</u>	<u>Total</u>
Faculty of Medicine, University of Indonesia	2,300	227	150	460.4	-	-	-	100	-	3,374.9
Institute for Medical Re- search-Kuala Lumpur	1,184	114	0	2,005	-	0	32	-	0	3,335
Institute of Hygiene Uni- versity of Philippines	200	250	-	72	110	97.6 (operational)	71.2 (library)	-	-	800.8
Faculty of Tropical Medicine- Bangkok	0	1,085 (includes some maintenance)	-	120	-	-	-	160	-	1,365
TOTAL	3,684	1,676	150	2,657.4	110	97.6	103.2	260	0	8,875.7

FUNDING SOURCES

The CCB anticipates that, subject to technical review and approval of plans, the US Government will provide financial assistance to support the tropical medicine project as outlined above, under the pledge of Mr. Black to seek funds from the US Government to finance up to half of the costs of SEAMEC projects. A summary of the funding plans proposed by the centers (i.e., the indicated sources of funding for the regional program requirement) is shown in Table IV.

TABLE IV

PROPOSED SOURCES OF FUNDING FOR THE CENTER DEVELOPMENT PLANS

(Showing requirements excluding scholarships in thousands US\$).

<u>Center</u>	<u>Host Govt.</u>	<u>USG</u>	<u>Other</u>	<u>Total</u>
Faculty of Medicine University of Indonesia	0*	1687.5	1687.5	3375
Institute of Medical Research Kuala Lumpur	2135.7	2275.9	1058.8	5470.4
Institute of Hygiene University of Philippines	380**	728.8	0	728.8
Faculty of Tropical Medicine	775	1010	235	2020

Notes

\* Government can offer salaries of personnel and also maintenance of buildings, equipment etc. (See review of Indonesian Plan).

\*\*The Institute's national 5-year plan will cost 3,800. The figure of 380 is 10% of this (Guessed-Not Stated in the Philippine Plan submitted to Consultants).

SCHOLARSHIPS

At a meeting of project directors held in Bangkok in June 1968, consideration was given to the consolidation of all SEAMEC project Scholarship costs in a centralized Special Fund under the responsibility of the Secretariat (SEAMES). The CCB proposes to transfer all scholarship costs in the programme outlined above to this SPECIAL Fund under SEAMES. It is understood that the Secretariat would solicit and coordinate contributions to this fund from member countries, from the USG, and from other donors. The scholarship requirements for the Tropical Medicine program outlined above are in Table V.

TABLE V.

Regional Scholarships (Calculated for a 5 year period).

	<u>Individual stipend</u>	<u>Trainees 5-yr. period</u>	<u>Total</u>	<u>Notes</u>
Faculty of Medicine University of Indonesia				
Course in nutrition	2.4	171	410.4	All students
Course in radio isotopes	1.0	50	50	All students
Institute of Medical Research Kuala Lumpur				
Entomology & parasitology	2.05	100	205	All students
Medical lab. technicians	3.0	600	1800	Foreign student
Institute of Hygiene University of Philippines				
M.P.H. )				
M.S. course in hygiene )	2.4	30	72	Foreign student only
C.P.H. )				
Faculty of Tropical Medicine Bangkok				
Diploma course in Trop. Med. & Hygiene	1.2	100	120	2 for each member country in 1968, rising to 4.
Total			<u>2657.4</u>	

Note. This Table does not include scholarships required for training members of staff of National Centre abroad for regional programmes.

The preceding summary, as well as the individual Revised Plans for the development of the four National Centers were examined by the Planning Consultant pannel in a meeting held in Bangkok, October 9-12, 1968.\* The directors of three of the national centers also attended this meeting.\*\*

The terms of reference were:

1. To review and refind national program submissions from the participating countries.
2. To construct an overall development plan from the component submissions.

The comments of the Consultants are set out in the following sections of this document.

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\* The Planning Consultant Team included Dr. Harold Brown, U.S.A.  
Dr. Brian Maegraith, U.K.  
Dr. Genzo Mitsui, Japan.  
Dr. John S. Wellington U.S.A.

\*\*The Center Directors included: Dr. Chamlong Harinasuta, Thailand.  
Dr. Ungku-Omar-Ahmad, Malaysia.  
Dr. Sjahriar Rasad, Indonesia.

III

GENERAL COMMENTS

The Consultants have written their report after consideration of the statements and figures presented to them during their meeting. In the discussions several revisions and new suggestions were made, particularly by the Malaysian member. These suggestions were noted and are mentioned in the Report where relevant. Further details are awaited and in the light of these it may be necessary to modify the conclusions reached.

As far as possible the consultants have taken note of the points made by Mr. Lee St. Lawrence that programmes must be clearly regional and that....." in situations where regional programmes are being built with national institutions" (it is necessary) "to identify clearly the regional development needs and to separate them from the development needs of the national institutions" (SEAMEC: Project Directors Second Meeting. Final Report. June. Bangkok, pages 29-30).

The plans presented by Indonesia, Malaysia, Philippines and Thailand were examined in this light and comments are appended.

The Consultants found the assessment of the regional values of some programmes difficult even when the regional need for a programme offered by a country was demonstrable, it was not usually possible to do more than guess the demand there would be for it in the sense of active participation by other member nations. For real

assessment of the regional significance of plans, especially teaching programmes, firm information is needed on such matters as the number of individuals available in members countries and the intention of the latter to allow them abroad for training. Suggestions on how this information are given in this Section.

#### National Plans: Estimate of Costs and Value to Region.

The consultants noted the different approaches of the four countries submitting plans for development over the five years. These ranged from requests for financial aid in all aspects, including building, equipment and personnel (with minimal contributions in terms of salaries and maintenance from the local government) to request for equipment and some maintenance only.

Since the consultants were not aware of clear guide-lines on matters such as what was acceptable as a national financial contribution (land, building, maintenance etc.) to match the USAID 50 per cent, they found it difficult at times to evaluate the final costing of a given national programme. They have attempted, however, to assess the general picture in each case as reflected in the comments on each plan.(Enclosed).

#### Assessment of Regional Values.

The regional value of a programme proposed by a National Centre may sometimes be difficult to assess. In this respect teaching programmes should be generally easier to evaluate than research.

A. Teaching

Justification of the regional value of any of the projects offered by the National Centres lies in three areas: The teaching they can do, the services they can perform, and the value to the region. None of the plans stresses adequately the latter two criteria, although it is noted, for instance, that Malaysia plans a regional reference Laboratory which will certainly serve regional needs, and all of the plans make some mention of research. More importantly, most of the plans seek to justify their programs on the basis of the teaching they will be doing to nationals from other countries in the region. This raises a difficult point, since it is simply not possible to predict what the demand for training in each of these fields by the member countries will be. No man-power estimates are available, and it would require a costly, elaborate and time-consuming survey to obtain complete, accurate data.

In order to help circumvent this problem, two courses of action are recommended:

1. That a very simple survey be made of the potential demand for training courses by the various countries of the region. Information should be sought from the several national health services and/or their component branches, from the deans of medical and other health science schools, and perhaps from medical associations in the region. Information is also needed on the standards of English reached by nationals who might be technically suitable to attend regional courses of training but not capable of benefiting because of poor English.

2. That the national representatives to the CCB broaden their own base of information by seeking ways to establish advisory committees in their own countries. If a broadly based advisory committee were created comprising, for example, deans of all the medical and health science schools in each country, with representation from the national health services and from local medical associations, communication between the providers of courses and potential users of the courses would be facilitated.

At present there seems to be a tendency for exchange of persons to be within the narrow confines of the staffs of each regional center.

Points which also need consideration quantitatively are:

- (1) the regional value of seminars, research training programmes, and ad hoc programmes likely to be offered for specific subjects;
- (2) the regional value of training nationals, for example in the Reference Centre for Parasitology and Entomology proposed by Malaysia, or other in-service programs; and
- (3) the regional value (quantitatively) of Ph.D., M.Sc. and M.Sc. (Technology).

Regional Teaching Programs not included in National Plans.

Certain teaching programmes which are offered by National Centers have not been included in the Plans submitted, since they are duplicated in some respects in most member countries.

These include:

i. Training for graduate doctors and scientists:  
Opportunities for training for Ph.D. and M.Sc. in research associated with endemic diseases common to the region.

These courses provide only a small contribution in numbers of individuals but the provision of even a few welltrained research workers is of considerable value to development.

ii. Postgraduate courses for technologists, for example the M.Sc. (medical technology) offered by Thailand.

iii. International conferences, seminars workshops, ad hoc specialist training programmes (for instance in filariasis), backed by WHO, IAEA etc. Such meetings, and especially the "schools" sometimes associated with them (as in the recent seminar on entomology), are internationally important, serving not only as foci of information but as a means of providing technical training needed to combat endemic diseases, such as malaria or filariasis, which are common to several (or all) member countries.

They are held in member countries where the facilities exist. (So far in Bangkok and Kuala Lumpur).

It was considered that teaching programmes of this sort should not be included in National Plans. They should be administered through CCBTM.

B. Research

The regional value of a given plan for research may be concealed in what is apparently a primarily national project. An example of this is the proposals from Thailand of extension work in the problems of health in socio-economic development. Although the preliminary work in the Northeast provinces of Thailand has concerned a dam complex which is only in Thailand, much of the expertise and information so gained will be directly applicable to other similar projects which will involve contiguous or more distant member countries and the experience gained can be transmitted in specific regional training programmes.

Research into the epidemiology of some diseases, such as filariasis or malaria may also have clear regional value.

On the whole, there is no easy way of assessing this and the consultants believe that each case will have to be examined on its merits. It should be the duty of the research proposer in the first instance to make what assessment he can and to submit his proposal on these grounds to his colleagues in other member countries at the appropriate time.

Note on the Thai studies of health problems in socioeconomic development.

As an illustration of the regional significance of what might appear at first to be essentially a national programme, an outline given below of the work planned and in progress in Thailand in the area of health and socioeconomic development.

Health problems related to development are of great regional significance, especially in view of the Mekong River Scheme. The national studies in the areas of the Lam Phra Phloeng Dam (Korat: North East) and particularly the Ubolratana and Nong Wai dams (Khon Kaen: North East), made jointly over the last few years by the Faculty of Tropical Medicine and the Thai Ministry of Public Health, have in certain respects set a general pattern for similar studies in other areas, including the scheme at Pa Mong on the Mekong River in which both Laos and Thailand will be concerned, and in which the Faculty of Tropical Medicine (as the National Center) will be involved.

Of immediate regional interest is the operation already in progress, for the study in detail of the health of pre-school and school age children in selected villages in the Ubolratana area in which families from the areas flooded by the dams have been resettled. It is proposed to follow weight and growth curves and various biochemical, physiological, nutritional and parasitological parameters in these children over a five year period, and to use the facilities of the hospital in Bangkok for studies in depth of nutritional situations and disease problems in the children concerned.\*

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\* Footnote: For this work that a paediatric clinical and teaching unit is to be established in the Thai Centre.

This work will be run in parallel with similar studies on children in villages in the areas to be irrigated by the Nong Wai dam, and with biochemical and clinical work in collaboration with the Children's Hospital in Bangkok on Kwashiorkor. It is anticipated that it will disclose much of vital importance to other areas in which families have been uprooted and translated to new environments, where living patterns and farming programmes have been completely changed, as in the Ubolratana area, where the displaced and resettled populations have had to change from rice culture to market vegetable growing and have had to adjust themselves to fully milled white rice as a staple (bought on the market) in place of their own crudely milled rice. This programme will bring in considerable activity in epidemiological surveillance at all age groups, a study which is again of regional significance, since the problems of disease related to water development, including diarrhoea, intestinal parasites especially hookworm-infection, leptospirosis and scrub typhus are shared by other member countries. The development of immunological methods in this respect would be of very considerable regional benefit.

#### General Questions

The consultants raised questions in the course of their discussions which relate to SEAMEC and CCB policy matters. Some of the important ones are noted below for the record:

1. Can the relation between the local development plans of a host institute (such as the Institute of Hygiene in Manila and the Faculty of Tropical Medicine in Bangkok) and the regional development plans be quantitatively assessed realistically? For example, is it possible to estimate the regional value of a national project in terms of a percentage of the total cost? Or in the development of national Center is it legitimate to fund national programmes which will possibly enable it to carry out regional projects which it otherwise could not? Is this a fair charge against regional plans?
2. What can be regarded as contributions offered by a National Centre to a proposed regional programme? Land? Building? Maintenance? Personnel and Salaries?
3. Is matching on a basis of 50 per cent of the total project costs irrespective of details? Or can it be done by matching building costs 50-50, equipment costs 50-50, and so on?
4. Should all scholarships be standardized (allowing for living costs etc.)? The amount claimed as "tuition" should be clearly laid down and a statement made about what the money is used for. Should tuition fees be standardized in Fellowships (At the moment they vary from \$65 in Thailand to \$ 1,000 in Indonesia).
5. If AID funds are not available in full, should priorities be drawn up for keeping CCB functioning as an international organization?

IV.

COMMENTS ON PLANS

CENTRAL CO-ORDINATING BOARD FOR TROPICAL MEDICINE

CCBTM

The consultants agreed in general with the comments on the activities of the CCBTM for 1968-69 made by the interim meeting of planning consultants in May 1968.

The budgets were examined and discussed with the Secretary-General, Professor Chamlong Harinasuta, who confirmed the figures given on pages 20 and 21 of the Booklet (1968)\*

These are summarized below:

<u>Budget April 1, 1968 - March 31, 1968</u>	\$ 136,000
<u>April 1, 1968 - March 31, 1969</u>	\$ 250,000

It is intended to extend this budget to June 30, 1969 to fit in with US fiscal year.

Subsequent budgets:

1969 - 1970	\$ 425,000
1970 - 1971	\$ 440,000
1971 - 1972	\$ 440,000
1972 - 1973	\$ 445,000

For 1967 - 1968 and 1968 - 1969 budgets USAID offered 100%

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\* Tropical Medicine Project: (SEAMEC) Central Coordinating Board, 1968.  
(Litho Bangkok Secretarial Office).

The representative of the USG has notified the Secretary-General of the CCB that no more than half of the CCBTM budget can be expected from the USG after the current operational year. An attempt will be made to raise the remaining half from member countries and external donors (8 including Japan). The amounts subscribed by member countries are likely to be small.

The budget for 1968 - 1969 is allocated as follows:

Administration

Office	28,400
CCB Meetings	9,600
Fund raising	12,000
Publications	13,000

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63,000

Consultants      Regional 10  
                         Planning 7

17,000

Regional Activities

Seminars	15,000
Teaching	75,000
Exchange personnel	20,000

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110,000

Research Grants

(Up to 10,000 for each member country).

60,000

Total

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250,000

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COMMENT

The Consultants agreed that the CCB was functioning well and was well administered by the Secretary-General.

The budget was arranged to meet the primary functions of the board as laid down by SEAMEC and the programme for 1968 - 1969 was satisfactory.

INDONESIA

A. General Objectives      The general objective of the five year development plan is to "improve the standard of health and living of the people in this region". To this end Indonesia proposes to utilize as far as possible the special training facilities provided by the cooperating countries and proposes to make its special contribution in the field of nutrition. This program is relevant to the high priority being given in Indonesia to improvement of food supply. It is clearly of importance to the whole region, and relevant to the whole spectrum of endemic diseases that hamper development.

The second objective, to develop a facility for teaching and research centered about the use of radio-isotopes is a different matter. While this activity may have a high priority within Indonesia, there is no clear relationship of the activity to important regional needs.

B. Specific Objectives      of the Indonesian program are to:

(1) Expand and upgrade the existing Department of nutrition of the School of Public Health which will permit it to offer a post-graduate program in nutrition leading to a diploma, later a master's degree and still later a Ph.D. degree.

(2) To develop a medical isotope unit which will offer physicians basic radioisotope training in the principles and practice of nuclear medicine.

C. NUTRITION PROGRAMME

(1) The consultants recognize that the provision of an adequate diet is a most important public health objective in the SEAMEC area and that Indonesia with its continued interest and development in this field could promote a Regional Program of education and training in this field.

(2) It is obvious that the present Department of Nutrition with its modest facilities and small staff that is currently giving nutrition courses in nine institutions, will require extensive strengthening, additional space, equipment, and operating funds if any further development is to take place.

(3) A basic course in nutrition which appears to be intensive and extensive is outlined in the Plan in some detail but the consultants would like clarification on how students with diverse academic backgrounds would fit into the course.

(4) The proposed training in four years of 171 students in a course of one academic year appears to the consultants to be possibly in excess of the number of nutrition specialists who could be recruited or employed after training. Manpower data on this problem are needed from each country. How many of these fellowships are needed for persons in service who have a position to return to?. How many new recruits are proposed and what new positions in nutrition would they return to?. What teaching, research and service facilities are available or will be available to these 171 "graduates" so that they may make a contribution to the health of their people?

(5) The five year budget for the nutrition program is \$1,967,000 however, \$ 1,900,000 is for building construction leaving only \$ 35,000 for equipment \$ 15,500 for books and journals and \$ 17,000 for five motor vehicles. There is an additional item of \$ 410,400 for scholarships. To match, to a degree, the total U.S. fund of \$ 2,310,400 are the salaries of the present 10 faculty members and the hope that the services and maintenance of the building could be covered by the Indonesian Government. Eight additional staff, four of them professional, are proposed. We would be interested in the qualifications and availability of the scientists proposed in this group. There is no item in this budget for operation of the nutrition department or its program.

(6) The outline of the proposed buildings is given only in terms of square meters for various facilities (26,320 sq. feet approximately). It is noted that the cost figures out to approximately \$ 73 per square foot. This is excessive.

(7) A number of problems require clarification:

(a) Fourteen functional administrative offices are shown in the diagram of organization of the National Training Centre for Nutrition (title need checking) for which space is not allotted in the square meter estimated. (Annex II, page 10)

(b) The eight laboratories proposed are much too small to accommodate the suggested 50 students and, if they are meant for the faculty only, some appear large.

(c) A total of \$ 35,000 appears inadequate to completely equip the proposed Department of Nutrition. Further there are no

items for expendable supplies or equipment repair. Would the tuition \$ 1,000 x 171 students = \$ 171,000 be used for this and other purposes?

(d) A separate dormitory is proposed with no mention of servicing or equipping it. Likewise a cafeteria is included without equipment.

(e) Special observation words "for nutritional studies on patients" are indicated in the plan "without detail for their servicing. Should this not be hospital-oriented?"

(f) Five motor vehicles are to be purchased but driver costs, maintenance etc. are not included in the budget.

(g) Maintenance and repairs of the proposed buildings will be expensive. This is not included in the budget. Dean Rasad expressed the belief that the University could assume their responsibility. This matter however needs definite arrangement because of the well-known deterioration of buildings in the tropics and the type of instruments being houses.

(b) Although never explicitly stated in the plan it is apparent that there are matching elements within Indonesia. Specifically these are the continued payment of salaries and provision for staffing and the overhead of operating the facility. The value of these two elements is not only unstated, but due to the present economic state of Indonesia is extremely difficult to evaluate.

COMMENT

It is obvious that the proposed budget for the Nutrition Programme of Indonesia requires careful and detailed reorganization of a viable development is to be made. The admitted inability of Indonesia to participate financially in the programme and its expressed hope that matching funds from outside sources become available make questionable what----- considerable amount is forthcoming.

D. REGIONAL MEDICAL ISOTOPE UNIT

After detailed discussion with Dean Rasad, who is a radiologist, he agreed that the isotope unit and the training programme as proposed should be reconsidered for the following reasons:

- a. This programme has a low Regional health priority, although it has a high National priority.
- b. The demand for trained personnel in this field is very limited at present, and the proposed classes of 25 students (once a year do not appear to be attainable or warranted)
- c. Necessary equipment, spare parts and maintenance and isotopes are not readily available.
- d. Some training in the isotope field is already available in Member Countries and the few workers in this field that require advanced training could best go to England or the United States.
- e. The budget requested for this programme is \$ 1,000,000 fellowships \$ 50,000.

The consultants concurred with Dean Rasad that a modest programme of isotopes in several aspects of nutritional research

would be profitable. Dean Rasad proposed to discuss this matter with the nutrition group on his return to Djakarta.

#### COMMENT

The consultants considered that the health benefits of the isotope plan were minimal in relation to the costs. They concurred with Dean Rasad that a modest programme of isotopes in several aspects of nutritional research would be more acceptable. Dean Rasad proposed to discuss this matter with the nutrition group on his return to Djakarta.

Note: The details and regional value of the research programmes offered by Indonesia are not discussed in the Report presented. A case for support might well be made for certain research programmes being carried out by the departments of the Faculty (the National Centre), especially in parasitology and epidemiology and allied subjects. The assessment of such research schemes is discussed in the review of the Thai programmes (page 52).

#### E. SEMINAR ON NUTRITION IN DJAKARTA

A work seminar for physicians is proposed for June 1969. This will be held under aegis of CCBTM and is not, strictly speaking, within the Five Year Plan for the National Centre. The schedule of subjects was tabled. It was noted that the first day consists of a field trip. Perhaps this exercise would be more meaningful later during the Seminar.

Dean Rasad stated that he hoped that the proposed Nutrition Seminar would stimulate the research activity of the nutrition faculty. He indicated that equipment and supplies for this purpose are in short supply.

FURTHER DISCUSSION WITH INDONESIAN DELEGATES

The results of discussion among Prof.B.G.Maegraith, Secretary General of CCBTM, Professor Dr. Poorwo Soedarmo and Dr. Djaeni Sedinoetama (1-2 November 1968) are summarized as follows:-

1. Isotope Unit

The setting up of this Unit would be deferred until the nutrition plans were implemented. In the nutrition programme would be included a section on isotopes for nutrition research. The Unit would possibly eventually develop from this.

(Dr. Kanjika isotope laboratory at the Faculty of Tropical Medicine, Bangkok was visited and an estimate obtained of its cost. Drs. Panata and Sricharoen demonstrated their research work in absorption of amino acid and xylose in infection and in nutritional problems).

The details, costings and functional programmes for a radioisotope unit in the Department of Nutrition would be worked out as soon as possible. In the first year basic equipment and isotopes would be needed.

The idea of a regular course of 6 weeks training in the usage of isotopes would be reconsidered. It would probably be better to offer training ad hoc as required.

2. Graduate Training and Research in Nutrition

This programme would be developed much as planned.

The following points were made:-

a. Scholarships. \$ 1,000 would be included in each scholarship for tuition.

This would be used to cover (i) the honorarium offered to teachers, (ii) transport, (iii) field work, (iv) teaching laboratory expenses and administration. The honorarium proposed for visiting lecturers was \$20 per hour, covering all expenses; not more than \$200 per year would be awarded to any one person.

b. Metabolic studies on patients would be made in hospital. Normal patterns would be obtained from healthy volunteers in beds provided in the National Centre.

c. The additional staff mentioned on p. 23 of the Plan presented to the Consultants were not in fact "additional" full-time people but would be lecturers etc. from agricultural, economic and other disciplines. They would be paid on the honorarium system (see (a) above).

d. The requirements for participants for the proposed Diploma Course would be changed. On page 2 of Annex II the text should be altered thus:

(a) as it stands, goes out

(b) becomes (a)

(c) becomes (b) with some additions:

(c) becomes (b) with some additions.

(b) Assistants on teaching staff of other Universities, preferably of the Nutrition, Biochemistry & Public Health Departments, Agriculture and Food Technology.

(d) Officials with a graduate degree, functioning in the policy making and execution of nutrition programmes.

3. Five Year Plan : Page 10. Annex 1

The diagram refers to the National (? Regional) Centre for Tropical Medicine and Nutrition. The major offices will be held by about 4 people only.

(The point here was that the teaching and space provided looked formidable).

4. The "invisible" contributions of the Indonesian Government should be listed instead of the categorial statement that the Government could not contribute.

These should include rent, maintenance, buildings, staff etc.

The possibility that Government of Indonesia would find some salaries and maintenance should be considered by the Committee for SEAMEC affairs. (as proposed to Dean Rasad).

MALAYSIA

1. Relevance:

The two programs proposed by Malaysia, a course for a Diploma in Applied Parasitology and Entomology and a school for Medical and Health Laboratory Technicians, are consistent with the goal of promotion of regional cooperation in education that is the underlying philosophy of SEAMEC. Both programmes are planned to provide training and education in important aspects of the health sciences to nationals of different countries in the region, and are focussed on solutions to problems in the control of disease endemic to the area. The contribution that individuals trained in these two programmes can make toward the solution of these problems is important for the improvement of the health and standard of living of the peoples of the region. Regional programs of this nature are not duplicated elsewhere in Southeast Asia.

While both programmes reflect in part development needs at the national level within Malaysia, they are directed toward needs of a much more widespread nature.

Malaysia's plan is closely related to national development planning for the host institution, the IMR. The development of the National Centre for Regional Teaching is an integral part of the overall plan, and in fact appears to constitute the major part of the development that will occur within the IMR in the next

5 to 10 years. The IMR is certainly closely related to the development in health services in Malaysia - it is one of the two major institutions of the country concerned in this development.

2. Practicality :

(a) Present Resources : These are such that the plan as presented can go ahead. It should be noted, however that to some extent, growth of the national center will be at the expense of the other "non-center" functions of the IMR. Seconding the majority of the professional and technological personnel of the IMR to work on Regional Programmes will leave very few to carry out the original function of the IMR. There appears to be a real risk of the National Center dominating the entire operation, which is not in accordance with the goals of the programme.

The reserve resources of trained personnel, especially at the higher professional levels are not presently available. Neither is working space.

The plan proposes the aquisition of land by the Malaysian Government and the construction of buildings as part of the development plan. One building complex designed to house the D.A.P.& E. course and extensive supporting facilities is considered in the

plan to be 100% "regional" in use, while the other complex for the School for Medical and Health Laboratory Technology and a number of supporting departments is designated as 50% "regional" in function. Subsequent discussion with Dr. Ungku Omar revealed that he contemplated reducing this latter proportion to 25%.

Two other buildings either under construction or recently completed to house the vaccine production and rural health research activities of the IMR will not be relevant to regional programmes. Some equipment and good library facilities are already available in the IMR. According to the plan, adequate provisions have been to assure long range local support of the programme.

#### PROPOSED PROGRAMMES:

##### (1) D.A.P. & E.

Need: According to Dr. Ungku Omar, an informal survey by him of the malaria eradication programmes in the region has shown a need for entomologists. All the public health department in the region need parasitologists. Malaysia itself would require 10 graduates/year. The Diploma would carry with it the possibility of advancement in the (Malaysian) Health Service, thus increasing its desirability. Dr. Ungku Omar thinks that a large number of other candidates for the course would come from Indonesia, the Philippines (from Malaria Eradication Center), and some from Thailand. Predication of the demand for this course is, as with courses offered in all the other regional plans, pure guess

work.' The need for individuals holding the qualifications afforded by this course in Malaysia is considered by Dr. Ungku Omar to be great. The continued need for such persons in other countries in the region is not yet documented.

During the discussion of the plan, Ungku Omar indicated a wish to revise from 30% to 60% the proportion of time to be spent by 9 professional teachers in this course. The consultants note that the time spent by these professionals in actual teaching will be 24 weeks/years.

Technical staff: The Consultants noted that the space allotment (51,075 ft.<sup>2</sup>) was clearly excessive for teaching 20 students. Ungku Omar indicated that this figure was derived by using Malaysian Government requirement, and that it was based on occupancy by a much larger number of students than just 20, and was projected over a 10 years period.

Further specific clarification of space allocations as given on page 10 revealed that the 12,500 ft.<sup>2</sup> for "accommodation of 25 people (20 post-graduates and 5 lecturers)", which at first seemed excessive referred to living accommodation or flatlets.

In view of the question raised above regarding the target figure for diplomates of this course, further documentation of need is required to modify the estimates of class size in the D.A.P. & E. Course.

In view of the fact that the proposed building plan and staffing scheme\* are excessive to meet the present stated objectives of the Course, Dr. Ungku Omar indicated his wish to re-work his plan in order to further clarify the objectives of the programme. Accordingly, he states the objective to be the creation of a Regional Reference Centre in Applied Parasitology and Entomology, a centre of excellence of which the D.A.P. & E. Course would be but one activity. Other ad hoc courses would be given.

(2) SCHOOL FOR MEDICAL & HEALTH LABORATORY TECHNOLOGY:

The proposed training programme for medical and health laboratory technicians is a carefully prepared and thoroughly acceptable kind of programme. There is no question that it will be of tremendous value to Malaysia. The regional significance of such a scheme lies in the extent to which it will also be useful to other countries within the region. It is here that some questions must be raised regarding feasibility. One aspect of mounting a regional course for technicians at the level suggested (after 8 to 11 years of schooling) that may be questioned is the potential availability of large numbers of suitable candidates. Laboratory technicians are generally recruited from that group of students who are unable to or who do not for one or another reason go on to higher degrees.

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\* The Plan includes: 60% of time of 9 Professionals already on the IMR staff, 20 medical laboratory technologists, 10 laboratory assistants and an administrative staff of 9.

These reasons - lack of academic aptitude, lack of knowledge of other opportunities, rural background, lack of wide cultural exposure, poverty, unwillingness to move to a city - are just as likely to be limiting factors for the young persons entering an international training programme. The bright young boy or girl who is alert and aggressive is much more likely to seek a degree in his own country. The number of these latter, proficient in English, who would be available each year to fill the 120 places in the regional course may be small. It is difficult to even guess how many there will be. It might be prudent to suggest a pilot trial on a much smaller scale.

The total space of nearly 135,000 ft.<sup>2</sup> to teach 240 students is excessive. A large part of this requirement (48,000 ft.<sup>2</sup>) is given over to residence hostel. The relevance of a hostel to the hosting of students from other countries is apparent, but there is no documentation of the need for anything approaching this size. The important question is the potential availability of 120 students from abroad each year. Even though a full complement of 120 foreign and 120 Malaysian students were to be attained, it seems unlikely that each one of these students would require housing. Some would live locally, others might prefer accommodation elsewhere. No indication is given of the proposed rental charges if any, although a figure for lodging is included in the scholarship.

Reasons given by Dr. Ungku Omar-Ahmad for proposing the course included:

1. With increasing use of the English language in the region, it is important to have middle level workers trained in English.

2. The environment for such training in English-speaking-Kuala Lumpur is ideal.

3. A course given at an "international" level would assure high quality of content.

4. If technicians are sent to western countries for training they are less likely to return than if sent to Malaysia.

During the discussion of this course, Dr. Ungku Omar-Ahmad indicated several changes which be planned to propose:-

1. The senior course would be shortened to one year of classroom instruction. Students would then be "apprenticed" to hospital laboratories for 2 years of provisional training before final certification. This is feasible for Malaysian students. For foreign students, return after 1 year to their own country would obviate the undesirable feature of sending the trainee at the lower end of the health sciences scale away for the longest time. On the other hand, it often would not be possible for the trainee to continue his apprentice training after return home. There might be difficulty in "plugging him in" to the system of laboratory technician training at home. Terminal examination is a problem.

2. The junior course would be 1 year long, not 6 months as shown on page 88.

3. The percentage of the School for Laboratory Technology regarded as regional would be reduced from 50 to 25.

4. Strong consideration would be given to establishing a course for medical and health technologists at a graduate level. Technologists who had already obtained a bachelor's degree in their own countries would be given a course leading to a master's degree.

General points noted in the proposal related to:-

(1) Tuition According to Dr. Ungku Omar-Ahmad, the tuition charged (and paid by scholarship) would revert to the Malaysian Treasury. If rental were charged, would it too revert to the Treasury?

(2) Maintenance, light water, etc. This item of 20% of the total of all other items occurring in the budget is significant part of what is proposed as Malaysia's contribution to the programme. In fact, the "matching" contribution of the Government of Malaysia consists almost entirely of this "maintenance" figure and staff salaries.

#### SUMMARY

The enrollment in the two courses proposed might be much lower than projected here. The requirements of space and staff to teach even the projected number of students seems excessive, and is apparently intended to allow for development of the Regional Reference Centre function of the IMR.

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Note. It was noted that the Plan as tabled did not refer to regional aspects of current and proposed research work. Programmes

of research in aspects of endemic disease could be reasonably considered as part of a regional five-year plan, provided the regional elements in the proposals were defined. The difficulties in assessing the regional values of national research programmes are discussed in the review on the Thai Plan (Page 52 ).

It was also noted that there was no reference in the Plan to international congresses, seminars, workshops etc. or to any opportunity that might be offered for persons from other member countries to work for higher research Degrees. (Although proposals of this sort are probably a legitimate claim on OCBTM, it might have been worth mentioning them in the Plan).

PHILIPPINES

GENERAL CONSIDERATION

The national Centre for Tropical Medicine, Republic of the Philippines, is the Institute of Hygiene, University of the Philippines, which was established as a unit of the University for training of post-graduates and under-graduates in courses in Public Health. Courses leading to the following certificates and degrees are given for post graduates:

C.P.H.	Certificate in Public Health
C.H.A.	Certificate in Hospital Administration
M.P.H.	Master of Public Health
M.P.H.E.	Master of Public Health Engineering
M.H.A.	Master of Hospital Administration
M.S.	Master of Science (Hygiene) with specialization in Microbiology, Parasitology and Nutrition.

Certificates are awarded by the Institute of Hygiene: the Masters Degrees are awarded by the University of the Philippines (UP). It is estimated that the graduate course in 1968 will be attended by over 90 students. A Bachelor of Science (B.S., Hygiene) is awarded to under-graduate trainees, of whom there will be over 60 in 1968. Cross-registrants from other Units of UP are estimated at 70 full-time, including students from the Colleges of Dentistry, Nursing, Pharmacy, the Population Institute, etc.

The extension services by members of the Faculty of the Institute of Hygiene have some international importance. In 1963-68 services were provided for 10 international and 42 government agencies. Under the extension services, members of the Faculty are invited as lectures, guest speakers or resource persons and so on. The regular staff of the Institute of Hygiene is as follows:-

Professors (3) Associate Professors (7) Assistant Professors (20) Instructors (1), Professional Lecturers (6) Lecturers (2) Assistant Lecturers (1) - as non-regular members).

The Central Coordinating Board of SEAMES agreed at the Third Meeting held in Manila in December 1967, that the specific contribution of the Philippines National Center for Tropical Medicine would be its role in training postgraduate students for the Region through the School of Public Health and Nutrition.<sup>\*</sup> Courses will be given in English for C.P.H., C.H.A., M.P.H., M.P.H.E. and M.S. (Hygiene).

Other programmes with regional elements suggested by the Institute include courses in (1) national health planning (2) occupational health and (3) family planning.

These may be incorporated or developed as separate graduate programmes.

<sup>\*</sup>CCB (Third meeting, Manila, 1967) agreed that, **as a start, in the first year each country should send one post-graduate student to attend courses held annually in Manila.**

The Institute of Hygiene is ready to implement its assigned role in the regional program.

It is proposed that SEAMEC assist the Institute of Hygiene in:

- (i) its normal operation and maintenance costs proportionally as the ratio of the number of students supported by SEAMEC to the total student population of the Institute increases.
- (ii) upgrading of library.
- (iii) development of staff in relation to increase of students as follows:

The National Center can take up to 10 participants from the Region for the courses in C.P.H., M.P.H. and M.P.H.E., and 5 participants for the course in M.S.(Hygiene).

The Center requests help in research development but no details are given.

The proposed assistance from SEAMEC will be a relatively small percentage of the total cost, and the Region is a beneficiary through its graduate participants. The financial support for the Regional Programme is closely related to the Five Year (1968-1973) Development Programme of the Institute itself.

Comment

The budget for construction and operation of the center for a five year period is based on the principle that since 10% of the effort can be regarded as regional in nature, 10% of the cost is attributed to the regional program. With regard to this principle, there are two items requiring discussion. The first is that no mention whatsoever is made of the method of financing of the cost that is attributed to regional effort. A figure of \$ 728,800 is stated, without indication as to whether this is a figure to be shared by AID/R and host country sources, or whether the Philippines proposes that this entire cost (for the entire regional component of the effort) be borne by SEAMEC.

The second point concerns the figure of \$ 728,800 itself. To derive this amount, 10% of operational and 10% of building costs are taken. To this has been added:

1. 100% of the cost of library upgrading (\$ 71,200)
2. 100% of the cost of research equipment for the departments (\$ 250,000).
3. The cost of providing 8 of the 45 Fellowships for the upgrading and development of Faculty (\$ 110,000).

If each of these three items were also to be pro-rated on a 10% basis, (i.e. \$ 7,120, \$ 25,000 and \$ 55,000 respectively), the total cost of 10% of the project allocated to regional effort would be \$ 384,700. If this latter figure represented the entire Philippine contribution,

than 50% of it, or \$ 192,350 would be the sum requested from SEAMEC.

<u>Item</u>	<u>1</u>	<u>2</u>	<u>3</u>
	<u>Total</u>	<u>Proposed share</u>	<u>10% of col. 1</u>
Normal Operation	976	97.6	97.6
Library	71.2	71.2	7.1
Faculty Development	550	110	55
Equipment	250	250	25
Physical plant	2000	200	200
Total	3800	728.8	384.7

\* = estimated.

The Philippines plan suggests the amounts in column 2. The consultants suggest the amounts in column 3 might be more appropriate.

Note The Plan as presented refers to the regional value of research in the Institute but gives no details. This omission could be remedied by inviting the Institute to make an assessment of its research. Alternatively work of value to the Region may have to be assessed ad hoc at a later stage.

The Figure in the Table (page 51) and the final paragraph under Comment (page 50) have been reexamined (P. R. Aragon and B.G. Maegraith). The following Table is now considered to be a better statement of the situation and the paragraph referred to above should be reconsidered accordingly.

Philippines National Centre for Tropical Medicine  
(Public Health)  
Proposed Budget 1968 - 1973

<u>Subject</u>	<u>Page/Table in 5-Year Plan</u>	<u>Institute</u>	<u>SEAMEC</u>
<u>Operations</u>	Table 21	975.6	97.6
<u>Equipment (a)</u>	Table 23	250	250
<u>Library (b)</u>	Table 20	71.7	71.7
<u>Faculty Development</u>	P. 11 d. P. 15	550	110
<u>Building, etc.</u>	P. 7	1800	200
	<u>TOTALS</u>	<u>3647.3</u>	<u>729.3</u>
			(728.8)

Notes:

- (a) Equipment is for National Centre for Tropical Medicine.
- (b) Why all charged to SEAMEC.

THAILAND

GENERAL CONSIDERATION

The programmes proposed by Thailand are : (1) Teaching for an international Diploma in Tropical Medicine and Hygiene; (2) Research in general tropical medicine; (3) Clinical work and Research, including the establishment of a Paediatric Unit.

It is proposed to build a central block to house the extended programmes of teaching and research.

TEACHING

Relevance The teaching programmes are regional in concept and in line with the general policy of regional cooperation laid down for SEAMEC.

These programmes are not duplicated in the Region.

Practicality The existing Thai staff and facilities are already operating successfully for teaching the D.T.M.& H. which is being attended by post-graduate students from other member countries. The maximum load has been reached and more accommodation will be needed if the numbers of students are to be increased as planned.

RESEARCH AND CLINICAL RESEARCH

Relevance These proposals contain elements of future national and regional importance, often difficult to separate. Many are clearly of particular and current significance, such as the studies of drug-resistant malaria parasites, and chemotherapeutic trials and other clinical research programmes.

The proposals are relevant to the need to improve standards of health and living of the Region. There is inevitably some overlapping in that some of the problems are being examined by other member states, but this is proper where the diseases themselves are also shared.

The creation of a paediatric unit in which studies can be carried out on infant and child nutrition and the relation of infection and nutrition, especially in areas of socio-economic development, will be an asset to the Region.

In general, the consultants agreed that the plans for research offered areas of regional as well as national value.

Basically, Thailand offers to cover the cost of staff, buildings and maintenance, Matching is requested primarily for equipment and some maintenance during the developing period.

#### A. REGIONAL TEACHING

Thailand offers a course for the international Diploma of Tropical Medicine and Hygiene, (D.T.M.& H.) Bangkok.

D.T.M.& H. (Bangkok)

Thailand has already provided facilities through the Faculty of Tropical Medicine (now designated the National Centre for Tropical Medicine) for an international course (taught in English) leading to the Diploma of Tropical Medicine and Hygiene (D.T.M.& H., Bangkok).

The syllabus has been developed from the course for the D.T.M.& H. taught in Thai since 1959-60. It provides basic training in tropical medicine and hygiene with special emphasis on endemic problems in SE Asia. It is designed to give information essential to rural practice of medicine and health and is not regarded as a specialist Diploma.

The CCBTM agreed at its first meeting in March 1967 to accept this course as part of the Thai contribution to regional training.

It is expected to expand the intake to 40 students per annum by 1972.

Comment

Regional and national value

The present D.T.M.& H. course is well designed and effectively taught; the Consultants would suggest more clinical teaching. The course is appropriate for regional needs. It is immediately available and has continuity. It has strong local support and is now established internationally.

The value to Thailand is undoubted, especially in providing doctors for rural areas as in First Class Health Centres.

The course would be of great regional importance, if member countries other than Thailand continued to send students to it. It is the only post-graduate course of its kind in the Region, and as it offers general training which would be useful in curative and preventive practice in rural areas in particular where 80 per cent of the population live and work, a demand could be expected owing to the great shortage of tropically-orientated doctors. As in all the plans offered by the member countries, however, it is not possible at the moment to make a quantitative statement of the real demand (as distinct from the need) for this course in the Region. More information is needed regarding the availability of suitable doctors from member countries and the intention of these other countries to employ them after training.

Note. As an indication of the present demand for the international D.T.M.& H. course, it was noted that the number of students has risen from 14 in 1967 (4\* from one member country and 1 from outside the SEAMES area) to 24 in 1968 (9\* from 4 member countries and 2 from outside the SEAMES area). Requests for places in the D.T.M.& H. courses are also coming in from countries outside the SEAMEC area, and from international organizations.

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\* On Fellowships from CCBTM.

Facilities & staff available: The existing facilities including buildings and equipment are fully stretched and will not cope with any further increase in student number.

There is a fully effective Thai staff. Other staff is seconded ad hoc from member countries. The incremental programme of the Thai government (10 per cent increase of medical or scientific staff per annum) will provide for the extra personnel needed for teaching the expanded D.T.M.& H. classes in the future.

Cost: The present cost to CCBTM is small. The Thai Government has built and equipped the existing School which, as the National Centre, has accepted full academic and financial responsibility for the Diploma course, except for scholarships for students and travel grants for overseas staff.

The National Centre cannot, however, deal with more than the present number of students. If the proposed expansion is to take place, financial support will be needed for provision of teaching space. This is included in the plan for providing a building for teaching and research, which is discussed later.

The Thai government is prepared to erect the building. Equipment and maintenance during the developing period, is requested on a matching basis.

#### B. RESEARCH

The Thai Centre proposes to carry out research projects many of which are already operated by the Faculty.

Those projects which are largely concerned with Thailand (such as Opisthorchiasis) will be dealt with on a Faculty basis. Those of regional importance will be undertaken by the Centre.

Certain of the projects listed in the Thai Plan clearly have considerable regional importance. These are not offered in terms of priority in the existing Report, which should be modified accordingly.

Subjects of high priority include:

Malaria : especially, the study of drug-resistant parasites. Filariasis: transmission, epidemiology, control of malayan and bancroftian infections (in areas adjacent to Malaysia and Burma). Leptospirosis and scrub typhus. Hookworm infection and anaemia. Malacological and entomological surveys and taxonomy. Insecticides and insecticide resistance. Malnutrition: Inter relation of disease and host nutritional status. Epidemiological surveillance, especially at an immunological level. Health problems in relation to socio-economic development.

Problems of this sort will be studied in Bangkok and in the field. Most of the material obtained in the field will be processed in the Bangkok laboratories.

To carry out the plans more space and facilities will be required. These are included in the plan for a building to house teaching and research which is discussed below.

Comment

Cost : See under plan for building for teaching and research.

National or regional ? It is difficult to assess the regional importance of research (laboratory or clinical) which is largely conducted inside national territory and which has an obvious element of national significance.

This is not a problem confined to Thailand. It applied to all member countries alike, and is a common difficulty in attempting to distinguish between national and regional interests. (It has been pointed out that in some respects the national interests of a member country may be also considered regional).

There are, however, certain projects which although carried out inside a particular nation, are directly relevant to regional medical problems. This is well illustrated by the research being done in Thailand in relation to health in the socioeconomic development of the Ubolratana and Nong Wai dams. The results of this work have a direct bearing on the much great regional Mekong River Development Scheme (See pages 16a & 16b under General).

C. CLINICAL WORK AND RESEARCH

a. As the D.T.M.& H. classes enlarge it will be necessary to find more accommodation for clinical teaching and for the promotion of clinical regional research, as in malaria, filariasis and controlled chemotherapeutic trials.

For this reason it is proposed to bring up the present hospital public beds to the full complement of 100 by adding a further 20 adult beds in space in the back of the hospital building at the moment used for research.

The clinical studies will also need extension of existing biochemical, parasitological, microbiological, nutritional, isotope and other research and routine facilities, as described in the plan for a building for teaching and research discussed below.

b. The creation of a paediatric clinical research unit in the hospital will require 40 beds together with appropriate staff, services, kitchens etc. and medical equipment.

The proposals for paediatrics as laid down by Thailand in the development plan examined by the consultants, are too sketchy. It is to be hoped that they will shortly be prepared in more detail especially in regard to the studies of children caught up in socioeconomic developments.

The Planning Consultants in their May 1968 interim report asked why a paediatric unit was needed, in view of there being a Children's Hospital in the next compound and wondered where patients would come from to fill the paediatric wards suggested in the Plan. Dean Chamlong pointed out that the work could not be done in a service hospital. Moreover, it will be conducted in the field as well as in Bangkok and much of the contemplated work in nutrition can be done only in the Centre

where the requisite facilities are available. Patients with kwashiorkor, marasmus, deficiencies, etc. will come from both the city (including selected patients from the children's hospital) and the rural areas (especially from the NE in Socio-economic development areas).

Comment

Adult and paediatric beds: The extra accommodation will serve the regional teaching for the D.T.M.& H. course, and will provide more opportunity for extending the practical clinical teaching, as suggested by the Consultants.

The beds will also assist clinical studies and research into regional endemic problems. Such work can be better done in the well-equipped hospital in Bangkok, where there are no service pressures, than elsewhere in the region.

The provision of paediatric beds will greatly increase the productivity of clinical research into basic problems common to the region. For this work the existence of relevant laboratories within the school and immediately available to the wards is essential.

The hospital is already well staffed and well run and it is to be expected that the extensions will be managed with equal efficiency. If the proposals are implemented the National Centre will provide long term support for the project.

Cost. The Thai government will cover the cost of the reorganization and rebuilding of the hospital and the extension of nurses' dormitories for \$ 100,000. A matching request for the same amount is made for equipment and maintenance. It is expected that some equipment will be supplied by other donors and research grants amounting to \$ 60,000 will come from other sources.

The consultants regarded this costing as appropriate.

D. PLAN FOR A CENTRAL BUILDING FOR TEACHING AND RESEARCH.

The proposals outlined above cannot be executed efficiently without considerable increase in space and facilities within the National Centre. At the moment, the laboratories are already overcrowded and there is no room for expansion. Teaching space is very limited and unless new accommodation is provided there will be little chance of increasing the D.T.M.& H. student numbers beyond the present 24.

The new beds cannot be added to the hospital until alternative accommodation is found for the research going on in the back of the existing hospital building.

It is therefore proposed that a central building for Teaching and Research be erected as Phase II\* of the Five Year Plan so that all teaching (except clinical), and most research (except that essential to clinical work) can be carried out in one area and in adequate space.

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\* Phase I originally included new offices for CCBTM, new auditorium and teaching space for Laos nurses. This has now been dealt with separately.

Dean Chamlong pointed out that the organization Chart set out on page 39 of the document tabled for study by the consultants needed alteration. The Research Divisions would not now be formed. Instead, the floors would be arranged as follows: Basement-workshops storerooms: Floor 1-entrance, cafeteria and kitchens; 2 library and museum; 3-D.T.M.& H. and other teaching accommodation, medical illustration; 4-malaria and amoebiasis haematology; 5-pathology and physiology; 6-tropical hygiene medically important arthropods; mammology; 7-medical entomology; 8-isotopes; 9-tropical nutrition and biochemistry; 10-microbiology and immunology.

The plans provide for 68,400 sq.feet of floor space at a cost of approximately \$ 10 per sq.feet. The building would be occupied by 1972 by some 250 staff of all grades and 70 students.

#### Comment

Practicability. The plans for the building are well set out. The programme for occupation is practicable and fits in with the overall Five Year Plan for the Thai National Centre.

Without prejudice to these particular plans, the Consultants suggested that advice from a planning architect might help in future assessment of proposals from member countries and might lead to better use of space, more efficient operation and cheaper building costs.\*

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\* A Scheme of this sort has already been agreed. (CCBTM Third Meeting Report, Philippines, December 1967, page 13 and Annex XI).

Cost. The Thai Government is prepared to erect the building and a matching grant is requested for equipment and some maintenance during the developing period.

This proposal is based on the assumption that matching will be calculated in terms of the total contribution offered by a member government. The point clearly needs further discussion at the appropriate level.

SUMMARY OF EVALUATION

For general account see Introduction to Consultant Report.

1. CENTRAL COORDINATING BOARD

The programme and budget for CCB activities as described in pages 2-5 of this report were reviewed by the Consultants and endorsed unanimously.

It was noted that the budget period for 1968 - 69 was to be extended beyond the present terminal date of March 31, 1969, to June 30, 1969.

2. NATIONAL CENTRES

1. The following locations of the national centers were confirmed.

Indonesia

- Faculty of Medicine, University of Indonesia in Djakarta, Djakarta.

Malaysia

- Institute for Medical Research, Ministry of Health, Kuala Lumpur.

Philippines

- Institute of Hygiene, University of the Philippines, Manila.

S.Vietnam

- Pasteur Institute of Vietnam, Saigon.

Thailand

- Faculty of Tropical Medicine, University of Medical Sciences, Bangkok.

2. The following are to be confirmed:

- Laos - To be within the Central Laboratory, to be converted into the Laboratory of Public Health, Vientiane.
- Singapore - Interim Member.

PLANS OF REGIONAL SIGNIFICANCE OFFERED BY NATIONAL CENTERS

The consultants considered the plans submitted by the member nations. The comments and reservations included in the detailed reports appended can be summarized as follows:

Indonesia

- i. Priority should be given to expansion of the Department of Nutrition, Faculty of Medicine, Djakarta. This would be a Diploma in Nutrition (later to become M.S. and finally Ph.D.). Research in nutrition should also have priority.
- ii. Development of Regional Medical Isotope Unit.  
It was considered that this has low regional priority. Some development of Medical isotope facilities might be included in the nutrition program.
- iii. It was noted that lack of evidence of financial support on the part of GOI represents a serious hindrance to developing external support.

Malaysia

1. Priority should be given to the development of a course for a Diploma of Applied Parasitology and Entomology (D.A.P. & E.) for 20 students at the post-graduate level.

It is understood that this teaching program will now be incorporated into a new proposal for a Regional Reference Center for Parasitology and Entomology, the details of which were not available at the time the Consultants met.

- ii. The regional demand and support for the proposed program in Medical and Health Laboratory Technology must be determined before approval can be given to support the regional aspects of this project. It was noted that this program as proposed drops below the post-graduate level, the level at which the Tropical Medicine Project is expected to operate.

Philippines

- i. Priority should be given to training post-graduates from member states in the Institute of Hygiene (the National Center) in annual courses.

<u>C.P.H.</u> , <u>M.P.H.</u> , <u>M.P.H.E.</u>	10 students
M.S. (Hygiene)	5 students

- ii. The possibility of developing regional elements of public health research should be studied.
- iii. It was the view of the consultants that if approximately **10%** of the total program at the Institute is to be regional, the regional request should not exceed 10% of total development needs.

- Thailand
- i. Priority should be given to support for the international D.T.M.& H. course. The probable extent of participation in this course by other countries should be evaluated.

- ii. Assistance for the regional elements of laboratory, field and clinical research in general tropical medicine should be given (The evaluation of the regional value of such research is a problem common to all research proposals from member nations. This requires more study).
  
- iii. Priority should be given for providing equipment and maintenance (over the developing period) for a central building for teaching and research to support the D.T.M. & H. course.

Vietnam, Laos,  
and Singapore

No comment at this stage.