No. 19842

UNITED STATES OF AMERICA
and
THAILAND

Project Loan Agreement for rural primary health care (with annexes). Signed at Bangkok on 4 May 1978

Authentic text: English.

Registered by the United States of America on 10 June 1981.

ÉTATS-UNIS D'AMÉRIQUE
et
THAÏLANDE

Accord de prêt relatif à un projet d'extension des prestations de santé primaires dans les régions rurales (avec annexes). Signé à Bangkok le 4 mai 1978

Texte authentique : anglais.

Enregistré par les États-Unis d'Amérique le 10 juin 1981.

PROJECT LOAN AGREEMENT[1] BETWEEN THE KINGDOM OF THAILAND AND THE UNITED STATES OF AMERICA FOR RURAL PRIMARY HEALTH CARE

Dated: May 4, 1978

A.I.D. Project No. 493-0291

A.I.D. Loan No. 493-T-021

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A.I.D. Project No. 493-0291

A.I.D. Loan No. 493-T-021

PROJECT LOAN AGREEMENT dated May 4, 1978, between the KINGDOM OF THAILAND ("Borrower"), acting through the MINISTRY OF FINANCE ("MOF"), and the UNITED STATES OF AMERICA, acting through the UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT ("U.S.A.I.D.")/THAILAND of the AGENCY FOR INTERNATIONAL DEVELOPMENT ("A.I.D.").

[1] Came into force on 4 May 1978 by signature.

Article 1. THE AGREEMENT

The purpose of this Agreement is to set out the understandings of the parties named above ("Parties") with respect to the undertaking by the Borrower of the Project described herein, and with respect to the financing of the Project by the Parties.

Article 2. THE PROJECT

Section 2.1. DEFINITION OF PROJECT. The Project, which is further described in annex 1, is to make primary health care services more readily available to the rural poor in Thailand, with primary focus on twenty specific provinces, through an expanded rural primary health care delivery system with strengthened and innovative training, management, evaluation and research practices.

Within the limits of the definition of the Project in this section 2.1, elements of the amplified description stated in annex 1 may be changed by written agreement of the authorized representatives of the Parties named in section 9.2 without formal amendment of this Agreement.

Article 3. FINANCING

Section 3.1. THE LOAN. To assist the Borrower to meet the costs of carrying out the Project, A.I.D., pursuant to the Foreign Assistance Act of 1961, as amended, agrees to lend the Borrower under the terms of this Agreement not to exceed five million five hundred thousand United States ("U.S.") dollars ($5,500,000) ("Loan"). The aggregate amount of disbursements under the Loan is referred to as "Principal." The Loan may be used to finance foreign exchange costs, as defined in section 7.1, and local currency costs, as defined in section 7.2, of goods and services required for the Project.

Section 3.2. BORROWER RESOURCES FOR THE PROJECT. (*a*) The Borrower agrees to provide or cause to be provided for the Project all funds, in addition to the Loan, and all other resources required to carry out the Project effectively and in a timely manner.

(*b*) The resources provided by the Borrower for the Project, including costs borne on an "in-kind" basis, will not be less than the equivalent of five million two hundred thirty thousand United States dollars ($5,230,000).

Section 3.3. PROJECT ASSISTANCE COMPLETION DATE. (*a*) The Project Assistance Completion Date (PACD), which is May 3, 1982, or such other date as the Parties agree to in writing, is the date by which the Parties estimate that all services financed under the Loan will have been performed and all goods financed under the Loan will have been furnished for the Project as contemplated in this Agreement.

(*b*) Except as A.I.D. may otherwise agree in writing, A.I.D. will not issue or approve documentation which would authorize disbursement of the Loan for services performed subsequent to the PACD or for goods furnished for the Project, as contemplated in this Agreement, subsequent to the PACD.

(*c*) Requests for disbursement, accompanied by necessary supporting documentation prescribed in Project Implementation Letters, are to be received by A.I.D. or any bank described in section 8.1 no later than nine (9) months following the PACD, or such other period as A.I.D. agrees to in writing. After such period, A.I.D., giving notice in writing to the Borrower, may at any time or times reduce the amount of the Loan by all or any part thereof for which requests for disbursement,

accompanied by necessary supporting documentation prescribed in Project Implementation Letters, were not received before the expiration of said period.

Article 4. LOAN TERMS

Section 4.1. INTEREST. The Borrower will pay to A.I.D. interest which will accrue at the rate of two percent (2%) per annum for ten years following the date of the first disbursement hereunder, and at the rate of three percent (3%) per annum thereafter on the oustanding balance of Principal and on any due and unpaid interest. Interest on the outstanding balance will accrue from the date (as defined in section 8.5) of each respective disbursement, and will be payable semi-annually. The first payment of interest will be due and payable no later than six (6) months after the first disbursement hereunder, on a date to be specified by A.I.D.

Section 4.2. REPAYMENT. The Borrower will repay to A.I.D. the Principal within thirty (30) years from the date of the first disbursement of the Loan in forty-one (41) approximately equal semi-annual installments of Principal and interest. The first installment of Principal will be payable nine and one half (9 1/2) years after the date on which the first interest payment is due in accordance with section 4.1. A.I.D. will provide the Borrower with an amortization schedule in accordance with this section after the final disbursement of the Loan.

Section 4.3. APPLICATION, CURRENCY, AND PLACE OF PAYMENT. All payments of interest and Principal hereunder will be made in U.S. dollars and will be applied first to the payment of interest due and then to the repayment of Principal. Except as A.I.D. may otherwise specify in writing, payments will be made to the Controller, Office of Financial Management, Agency for International Development, Washington, D. C. 20523, U.S.A., and will be deemed made when received by the Office of Financial Management.

Section 4.4. PREPAYMENT. Upon payment of all interest and any refunds then due, the Borrower may prepay, without penalty, all or any part of the Principal. Unless A.I.D. otherwise agrees in writing, any such prepayment will be applied to the installments of Principal in the inverse order of their maturity.

Section 4.5. RENEGOTIATION OF TERMS. (*a*) The Borrower and A.I.D. agree to negotiate, at such time or times as either may request, an acceleration of the repayment of the Loan in the event that there is any significant and continuing improvement in the internal and external economic and financial position and prospects of Thailand which enables the Borrower to repay the Loan on a shorter schedule.

(*b*) Any request by either Party to the other to so negotiate will be made pursuant to section 9.1, and will give the name and address of the person or persons who will represent the requesting Party in such negotiations.

(*c*) Within thirty (30) days after delivery of a request to negotiate, the requested Party will communicate to the other, pursuant to section 9.2, the name and address of the person or persons who will represent the requested Party in such negotiations.

(*d*) The representatives cf the Parties will meet to carry on negotiations no later than thirty (30) days after delivery of the requested Party's communication under subsection (*c*). The negotiations will take place at a location mutually agreed upon by the representatives of the Parties, provided that, in the absence of mutual agreement, the negotiations will take place in Thailand at the Borrower's Ministry of Finance.

Section 4.6. TERMINATION ON FULL PAYMENT. Upon payment in full of the Principal and any accrued interest, this Agreement and all obligations of the Borrower and A.I.D. under it will cease.

Article 5. CONDITIONS PRECEDENT TO DISBURSEMENT

Section 5.1. FIRST DISBURSEMENT. Prior to the first disbursement under the Loan, or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made, the Borrower will, except as the Parties may otherwise agree in writing, furnish to A I.D. in form and substance satisfactory to A.I.D.:

(*a*) An opinion of counsel acceptable to A.I.D. that this Agreement has been duly authorized and/or ratified by, and executed on behalf of, the Borrower, and that it constitutes a valid and legally binding obligation of the Borrower in accordance with all of its terms;

(*b*) A statement of the names of the persons designated pursuant to section 9.2 as additional representatives of the Borrower, together with a specimen signature of each such person and a statement of the extent of his or her authority; and

(*c*) Assurances that the technical assistance staff to be funded under the Loan who will be working in the Health Planning Division of the Ministry of Public Health will be provided with adequate office space, equipment, and transportation facilities to perform their assigned tasks effectively;

(*d*) Assurances that the research and evaluation specialist and the research assistant of the A.I.D.-funded technical assistance staff will be provided with counterparts from the Borrower who are professionals with appropriate backgrounds and comparable skills.

Section 5.2. ADDITIONAL DISBURSEMENT. Prior to disbursement under the Loan or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made for training costs, the Borrower will, except as the Parties may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D.:

(*a*) A detailed master training plan setting forth the purpose and scope, a time schedule and curricula for the proposed training and a staffing pattern for trainers.

(*b*) For trainees other than village health volunteers, village health communicators and child nutrition center attendants, evidence that at the time training for such trainees is to commence, the Borrower has established and made appropriate budgetary allocations on a permanent basis for positions to be staffed by each group of trainees whose training costs are to be financed under the Loan.

Section 5.3. NOTIFICATION. When A.I.D. has determined that the conditions precedent specified in section 5.1 and 5.2 have been met, it will promptly notify the Borrower.

Section 5.4. TERMINAL DATES FOR CONDITIONS PRECEDENT. If all of the conditions specified in section 5.1 have not been met within ninety (90) days from the date of this Agreement, or if the condition specified in section 5.2 (*a*) has not been met within one hundred and twenty (120) days from the date of this Agreement, or such later date or dates as A.I.D. may agree in writing, A.I.D., at its option, may cancel the then undisbursed balance of the Loan, to the extent not irrevocably committed to third parties, and may terminate this Agreement by written notice to the Borrower. In the event of such termination, the Borrower will repay immediately

the Principal then outstanding and any accrued interest; on receipt of such payments in full, this Agreement and all obligations of the Parties hereunder will terminate.

Article 6. SPECIAL COVENANTS

Section 6.1. PROJECT EVALUATION. The Parties agree to establish an evaluation program as an integral part of the Project. Except as the Parties otherwise agree in writing, the program will include, during the implementation of the Project and at one or more points thereafter, (*a*) evaluation of progress toward attainment of the objectives of the Project, (*b*) identification and evaluation of problem areas or constraints which may inhibit such attainment, (*c*) assessment of how such information may be used to help overcome such problems, in this or other projects, and (*d*) evaluation, to the degree feasible, of the overall development impact of the Project. Joint evaluations will be conducted by the Borrower and A.I.D. in accordance with the plan set forth as attachment I-B to annex 1 of the Agreement.

Section 6.2. SUPERVISION. The Borrower covenants that adequate supervision will be given to all health professionals in the Project, particularly including auxiliary midwives, village health volunteers and village health communicators.

Section 6.3. LOGISTICS AND SUPPLY SYSTEM. The Borrower covenants that the existing health logistics and supply system will be expanded at a pace commensurate with the development of health facilities and the assignment of health personnel to the rural areas under the Project.

Section 6.4. PLANNING, MANAGEMENT AND INFORMATION SYSTEM. The Borrower covenants that the planning, management and information system being developed and implemented by the Ministry of Public Health in cooperation with the World Health Organization will be expanded systematically at all levels in the Project's selected provinces as health personnel are trained and posted to those provinces.

Section 6.5. TECHNICAL ADVISORY SERVICES. The Parties agree that a contract or contracts will be entered into on a timely basis with individuals or organizations to provide technical advisory services for Borrower's health planning and research program under the Project.

Article 7. PROCUREMENT SOURCE

Section 7.1. FOREIGN EXCHANGE COSTS. Disbursements pursuant to section 8.1 will be used exclusively to finance the costs of goods and services required for the Project having their source and origin in countries included in code 941 of the A.I.D. Geographic Code Book as in effect at the time orders are placed or contracts entered into for such goods and services ("Foreign Exchange Costs"), except as A.I.D. may otherwise agree in writing, and except as provided in the Project Loan Standard Provisions Annex, section C.1(*b*) with respect to marine insurance.

Section 7.2. LOCAL CURRENCY COSTS. Disbursements pursuant to section 8.2 will be used exclusively to finance the costs of goods and services required for the Project having their source and, except as A.I.D. may otherwise agree in writing, their origin in Thailand ("Local Currency Costs").

Article 8. DISBURSEMENTS

Section 8.1. DISBURSEMENT FOR FOREIGN EXCHANGE COSTS. (*a*) After the satisfaction of conditions precedent, the Borrower may obtain disbursements of funds under the Loan for the Foreign Exchange Costs of equipment and advisory

services required for the Project in accordance with the terms of this Agreement, by such of the following methods as may be mutually agreed upon:

(1) By requesting A.I.D. to issue Letters of Commitment or other assurance directly to one or more contractors or suppliers, committing A.I.D. to pay such contractors or suppliers for such goods or services.

(2) By requesting A.I.D. to issue Letters of Commitment for specified amounts to one or more U.S. banks, satisfactory to A.I.D., committing A.I.D. to reimburse such bank or banks for payments made by them to contractors or suppliers, under Letters of Credit or otherwise, for such goods or services.

(*b*) Banking charges incurred by Borrower in connection with Letters of Commitment and Letters of Credit will be financed under the Loan unless the Borrower instructs A.I.D. to the contrary. Such other charges as the Parties may agree to may also be financed under the Loan.

Section 8.2. DISBURSEMENT FOR LOCAL CURRENCY COSTS. (*a*) After satisfaction of conditions precedent, the Borrower may obtain disbursements of funds under the Loan for Local Currency Costs required for the Project in accordance with the terms of this Agreement, by submitting to A.I.D., with necessary supporting documentation as described in Project Implementation Letters, requests to finance such costs.

(*b*) The local currency needed for such disbursement hereunder may be obtained by acquisition by A.I.D. with U.S. dollars by purchase.

The U.S. dollar equivalent of the local currency made available hereunder will be the amount of U.S. dollars required by A.I.D. to obtain the local currency.

Section 8.3. OTHER FORMS OF DISBURSEMENT. Disbursements of the Loan may also be made through such other means as the Parties may agree to in writing.

Section 8.4. RATE OF EXCHANGE. If funds provided under the Loan are introduced into Thailand by A.I.D. or any public or private agency for purposes of carrying out obligations of A.I.D. hereunder, the Borrower will make such arrangements as may be necessary so that such funds may be converted into currency of Thailand at the highest rate of exchange which, at the time the conversion is made, is not unlawful in Thailand.

Section 8.5. DATE OF DISBURSEMENT. Disbursements by A.I.D. will be deemed to occur (*a*) on the date on which A.I.D. makes a disbursement to the Borrower or its designee, or to a bank, contractor or supplier pursuant to a Letter of Commitment, contract, or purchase order; or (*b*) on the date on which A.I.D. disburses to the Borrower or its designee local currency acquired in accordance with section 8.2.

Article 9. MISCELLANEOUS

Section 9.1. COMMUNICATIONS. Any notice, request, document or other communication submitted by either Party to the other under this Agreement will be in writing or by telegram or cable, and will be deemed duly given or sent when delivered to such party at the following address:

To the Borrower:
Mail Address:
Ministry of Finance
Royal Grand Palace
Bangkok, Thailand
Cable Address:
Minance
Bangkok, Thailand

To A.I.D.:
Mail Address:
United States Agency for International Development
American Embassy
Bangkok, Thailand
Cable Address:
USAID
Bangkok, Thailand

All such communications will be in English, unless the Parties otherwise agree in writing. Other addresses may be substituted for the above upon the giving of notice.

Section 9.2. REPRESENTATIVES. For all purposes relevant to this Agreement, the Borrower will be represented by the individual holding or acting in the Office of Minister of Finance, and A.I.D. will be represented by the individual holding or acting in the Office of Director, United States Agency for International Development, each of whom, by written notice, may designate additional representatives for all purposes other than exercising the power under article 2 to revise elements of the amplified description in annex 1. The names of the individuals designated as additional representatives of the Borrower, with specimen signatures, will be provided to A.I.D., which may accept as duly authorized any instrument signed by such representatives in implementation of this Agreement, until receipt of written notice of revocation of their authority.

Section 9.3. STANDARD PROVISIONS ANNEX. A "Project Loan Standard Provisions Annex" (annex 2) is attached to and forms part of this Agreement.

IN WITNESS WHEREOF, the Kingdom of Thailand and the United States of America, each acting through its duly authorized representative, have caused this Agreement to be signed in their names and delivered as of the day and year first above written.

Kingdom of Thailand:

By: SUPHAT SUTATUM
Minister of Finance

United States of America:

By: CHARLES S. WHITEHOUSE
Ambassador

ANNEX 1

RURAL PRIMARY HEALTH CARE PROJECT

Detailed Project Description

1. *Introduction*

As indicated in article 2, the project purpose is to expand and improve the rural health delivery system of the Royal Thai Government Ministry of Public Health (RTG MOPH) in 20 provinces of Thailand through:

- Innovative training,
- Strengthened research and evaluation capabilities, and
- More efficient management practices.

The project described here will directly relate to the Accelerated Family Planning and Health project currently being planned by the RTG to construct new, and improve existing, health facilities in 20 rural provinces of Thailand. These provinces have been selected because they have relatively large populations and poor health coverage. (See next page describing provinces).

The project described herein will strengthen the RTG/AFPH project appreciably by improving the existing rural health care system, specifically the manpower capability at district hospitals, second class health centers, midwifery centers and remote villages in these provinces in addition to improving supervisory and management skills.

This section will provide a detailed description of the proposed training, and evaluation-research components. Each of these project elements will be considered in terms of needs, expected outputs and required inputs.

2. *Training*

Personnel to be trained under this project include:

- Nurse practitioners,
- Auxiliary midwives,
- Health assistants,
- Supervisory personnel,
- Village volunteers, and
- Health communicators.

Included in this project are a variety of short term training activities which will upgrade the skills of new and existing MOPH staff and volunteers in the provision of primary health care basic services in rural areas.

The concept of short term training, as used in this paper, refers to training courses or seminars ranging in length from a week or less to several months. It encompasses in-service training for upgrading the skills of paramedicals and includes short basic or pre-service training for junior auxiliaries. It does not include basic training for those personnel which requires several years to complete.

This project concentrates heavily on financing training of health service providers and those personnel responsible for their support as follows:

a. *Nurse Practitioners*

(1) *Need*

The provision of health services to the Thai population, especially those living in the rural areas, is a grave problem faced by RTG. One of the most important obstacles to providing increased coverage to the rural population is the lack of appropriately trained personnel. There is

THAILAND—CHARACTERISTICS OF ACCELERATED FAMILY PLANNING AND HEALTH PROVINCES
(Population Figures as of September 1975)

Region	Province	Total Population	Rural Population[1]	No. of Districts (A)	No. of Sub-Districts (B)	Total of (A and B)	No. of Tambons	No. of Tambons in Provincial Capital Dist.[2]	No. of Villages	No. of Villages in Provincial Capital Dist.[2]	No. of Health Facilities
North	Phíchít	595,782	417,047	6	1	7	71	(17)	565	(137)	99
	Pechabun	680,143	537,313	7	1	8	76	(16)	319	(123)	119
	Nakhon Savan	965,790	753,316	12	-	12	109	(16)	1,009	(150)	167
	Pitsanulok	655,216	458,651	8	1	9	75	(17)	684	(132)	161
	Xaophaeng Phet	497,840	288,747	4	1	5	44	(14)	410	(104)	95
	Lamphun	338,521	199,727	5	-	5	42	(15)	343	(130)	78
	Sukothaí	497,824	398,259	8	1	9	70	(9)	504	(54)	131
	Sub-Total	(4,231,116)	(3,053,060)	(50)	(5)	(55)	(487)	(104)	(3,834)	(830)	(850)
Northeast	Buri Zam	1,030,152	855,026	10	1	11	93	(15)	1,376	(246)	168
	Si Sa Xet	957,272	804,108	9	1	10	137	(24)	1,395	(200)	215
	Surin	957,537	737,303	9	2	11	101	(19)	1,390	(262)	187
	Maha Sarakham	700,596	574,489	8	1	9	83	(12)	1,208	(184)	169
	Roi Et	938,656	820,584	11	2	13	128	(19)	1,561	(259)	206
	Nong Kai	595,199	470,207	7	2	9	61	(14)	695	(135)	126
	Udon Thaní	1,302,244	1,028,778	14	5	19	129	(14)	1,589	(163)	237
	Sub-Total	(6,531,656)	(5,290,495)	(68)	(14)	(82)	(737)	(117)	(9,214)	(1,449)	(1,308)
Central	Nakhen Phathon	507,800	335,148	6	-	6	98	(25)	775	(195)	115
	Suphan Burí	703,445	548,687	8	1	9	99	(19)	665	(97)	150
	Prachín Buri	553,291	470,297	9	2	11	85	(13)	802	(127)	125
	Kanchanhburi	425,349	323,205	10	-	10	78	(15)	471	(72)	121
	Sub-Total	(2,189,885)	(1,677,397)	(33)	(3)	(36)	(360)	(72)	(2,713)	(491)	(512)
South	Sangthis	748,233	598,586	10	-	10	114	(17)	891	(130)	201
	Naknon Si Thammorat	1,193,608	966,822	15	1	16	133	(22)	1,012	(109)	240
	Sub-Total	(1,941,841)	(1,565,408)	(25)	(1)	(26)	(247)	(39)	(1,903)	(239)	(441)
	TOTAL	14,894,498	11,586,360	176	23	199	1,831	(332)	17,664	(3,009)	3,111

[1] Excluding population in provincial capitals.
[2] Known as a Maung.
SOURCE. World Bank, *Appraisal of a Population Project*, August 1977.

a serious shortage of doctors, with most of them heavily concentrated in towns and cities. Approximately 70% of Thailand's doctors live in Bangkok.

Because of their heavy work-load, doctors in the rural areas cannot spend enough time to examine and diagnose patients properly. Thus, the quality of medical services provided to the rural population is far inferior to that provided to the population of major urban areas such as Bangkok.

Even with the projected rate of increase in the number of new doctors graduating from Thailand's medical schools (an increase from 385 to 500 doctors yearly), there will not be enough doctors to staff the rural health delivery system for some time. Also it is not realistic to imagine that high numbers of physicians will elect to serve in rural areas.

At the present time, approximately 130 district hospitals do not have a single doctor on their staff. To compensate for this shortage the MOPH has taken steps to delegate some of the functions commonly performed by doctors to a new category of personnel — experienced nurses who will be trained and upgraded to become "nurse practitioners".

The new group will provide substantial medical care in the public health program at provincial and district hospitals. They will also supervise the overall public health and medical care activities of auxiliary staff in rural health facilities (e.g., health centers and midwifery centers). In the long run, the MOPH plans to staff all district hospitals with these nurse practitioners.

(2) *Output*

Institutional training in public health and medical care will be provided by the School of Public Health, Mahidol University. Nurses already trained in public health will receive a concentrated ten week course in medical care. Nurses with no background in public health will receive a 28 week course including both public health and medical care. Fourteen weeks of field training will be given to both groups by the MOPH. Two classes of 150 students each will start training in May of 1978, 1979 and 1980.

These nurse practitioners will be taught the skills needed to:

- Identify health problems,
- Make differential diagnoses,
- Handle emergencies and minor surgical procedures,
- Treat minor illnesses,
- Manage abnormal deliveries and perform episiotomies,
- Carry out MCH and Family Planning services (including IUD insertions),
- Participate in the administration of services in a district hospital or health center, and
- Supervise district hospitals where no physicians are present.

To help ensure that sufficient numbers of nurse practitioners will be available to rural health services throughout the country, this project will support the training of 900 nurse practitioners — 700 at the national level and 200 for AFPH provinces. Priority will be given to the preparation of nurse practitioners for the 20 AFPH provinces in district hospitals having no physicians.

(3) *Input*

This project will provide US$ 540,000 for field training of nurse practitioners. These costs include travel, per diem, training materials, and medical kits.

b. *Auxiliary Midwives*

(1) *Need*

The Government's Fourth National Economic and Social Development Plan emphasizes the provision of preventive, promotive, curative and rehabilitative health services in an integrated fashion for the whole country. The focus of the program is on expanded coverage and improved quality of service for the severely underserved rural areas. The number of health

centers and midwifery clinics will be increased and their functions changed. Health services will be integrated so that medical care and treatment will be provided to the rural population in conjunction with preventive measures.

A practical nurse/midwife will be added to the staff of each new or upgraded health center, thus releasing the auxiliary midwives and junior sanitarians at these centers to undertake more field work. This will also enable the centers to remain open for longer hours.

A serious barrier to greater utilization of health centers and midwifery clinics has been the inability of the paramedicals staffing these facilities to offer the kinds of curative services sought by the public. The majority of the staff in rural areas are auxiliary midwives, practical nurse/midwives, sanitarians and practical nurses. They have been trained in sanitation, MCH/FP, environmental health, control of communicable diseases, and health education.

The MOPH has now increased the responsibilities of the auxiliary midwives to include the provision of medical care to the rural people. Essentially they will be providing limited curative services as physician extenders. Therefore, it is imperative that this category of health personnel have the necessary knowledge and ability to effectively deliver curative services and to perform their added duties within the scope of the responsibilities specified by the MOPH.

The new functions of the auxiliary midwives will include:

- Minor surgical procedures and treatment of accidents,
- Curative services for many common diseases,
- Simple laboratory services (e.g., urinalyses to detect albumin and glucose; stool examinations for parasite ova; and blood tests to measure hemoglobin and to detect malaria parasites),
- Identification of more serious conditions, emergency assistance and referral to a physician,
- Collection, compilation and reporting of statistical data, and
- Training, supervision and support of primary health care workers, village health volunteers and communicators.

(2) *Output*

A four-month course in curative care has been developed to be given to all auxiliary midwives assigned to health and midwifery centers in the 20 AFPH provinces. Priority will be given to auxiliary midwives since they already play a more important role than junior sanitarians (the other major auxiliary worker staffing rural health facilities) in providing medical care.

In addition, auxiliary midwives have a crucial role in the delivery of family planning services. Improving their skill in medical care will increase public acceptance of their advice and help in this and other areas of basic health. (As soon as auxiliary midwives are permitted to insert IUDs and provide injectables (DMPA), training will be initiated under the United Nations Fund for Population Activities (UNFPA) funded Family Planning grant. Priority will be given to midwives who have already completed the 4 months curative care training course.)

The training program in curative care will consist of one month's theoretical content and 3 months of practical training. Fourteen training institutions will participate in the program — 3 MCH centers, 7 Nursing Colleges and 4 Practical Nursing Schools, each of which will provide the same curriculum.

The detailed curriculum for the auxiliary midwives' training is being prepared by the MOPH in consultation with the staff of the Lampang Project. This approach will make use of that project's experience in training and deploying auxiliaries with special training in medical care. Practical training will take place in provincial and district hospitals.

A two month curriculum (theoretical and practical) has been developed for the training of the personnel who will be responsible for the instruction of the auxiliary midwives. This training will include a review of basic medical and surgical knowledge and procedures and a study of teaching methodologies, as well as the preparation needed to provide the auxiliary midwives

with the necessary skills for their new medical duties. 220 persons are scheduled to take this course.

In addition, approximately 500 physicians, nurses and nurse practitioners will be oriented to the expanded role of these auxiliary midwives during a series of one week seminars. These are personnel from the provincial and district hospitals and MCH centers in the 20 AFPH provinces who will be involved with the auxiliary midwives while they are doing their field training and, later, when they are assigned to their stations.

Over the 3 years of the project, 2,250 auxiliary midwives will undergo training in 90 groups of 25 trainees each.

AUXILIARY MIDWIFE TRAINING SCHEDULE

Training Facility	*1978*	*1979*	*1980*	*1981**	*Total*
3 MCH Centers					
Trainees	75	225	225	75	600
Groups	(3)	(9)	(9)	(3)	(24)
7 Nursing Colleges					
Trainees	175	350	350	175	1050
Groups	(7)	(14)	(14)	(7)	(42)
4 Practical Nursing Schools					
Trainees	100	200	200	100	600
Groups	(4)	(8)	(8)	(4)	(24)
TOTAL TRAINEES	350	775	775	350	2250
TOTAL GROUPS	(14)	(31)	(31)	(14)	(90)

* Project length is three fiscal years, therefore the final groups of trainees will complete training in early 1981.

(3) *Input*

This project will provide US$ 2,297,000 for the training of auxiliary midwives. These costs include travel, per diem, training materials and medical kits for the trainees. Also included are the institutional costs for conducting the training programs and costs of training instructors.

c. *Health Assistants*

(1) *Need*

(a) *Midwifery Centers*

Currently each of the midwifery centers in the country are staffed with one person, an auxiliary midwife, who finds it difficult to simultaneously provide adequate clinical services at the center and extension services in the community. To ease the burden on midwives until their centers are upgraded to health centers (with one or two additional auxiliaries), health assistants will be temporarily assigned to the midwifery centers. The health assistants will be trained to perform routine tasks at the center and in the field. This will free the midwife for more technical tasks and for additional field responsibilities.

Specifically the duties of the health assistants will include:

- The preparation of clinical equipment, vaccination kits, and medical supplies;
- Home visits to follow MCH patients and family planning acceptors;
- Periodic contacts with village health volunteers to ensure that they are receiving adequate supplies of drugs and contraceptives;
- Provision of first aid services when the auxiliary midwife is not available at the center;
- Issuance of contraceptives to revisit clients;
- Assistance with record keeping and routine reporting; and
- Maintaining the midwifery center.

This class of junior paramedicals will be recruited locally. Recruitment will be from among unmarried women, aged 18-25, with a grade 10 education or higher, and who are other-

wise eligible for basic training as auxiliary midwives or practical nurse/midwives. As they prove their capability, these health assistants will eventually be upgraded to auxiliary midwives or practical nurse/midwives through additional training.

(b) *MCH/Family Planning*

Health assistants will also be prepared for nationwide deployment in provincial and district hospitals, provincial health offices where family planning services are offered, and MCH centers. The vast majority (about 90%) will be assigned to district hospitals (one each) and provincial hospitals (two each). The other 10% will be posted to provincial health offices with family planning clinics, and to the MCH centers.

These health assistants will:

- Participate in the setting up and operation of Family Planning clinics;
- Supply condoms and oral contraceptives;
- Carry out face-to-face IEC activities in clinics and maternity wards;
- Maintain family planning records and visit drop-outs.

Recruitment for the health assistants will be from among 20-40 year old women who are natives of the district with a grade 10 education or higher, and with a pre-existing interest in family planning and an ability to get along well with other people.

(2) *Output*

(a) *Health Assistants for Midwifery Centers*

A total of 750 health assistants for midwifery centers will be trained within the 20 AFPH provinces. This will provide a second person to staff each of the 735 midwifery centers that will be functioning by the end of the project period.

Training will last 6 weeks, of which 2 weeks will be devoted to classroom training at 2 of the MCH centers, and 4 weeks of practical training. Heavy emphasis will be placed on MCH and family planning, with the following subjects also covered: nutrition, first aid, communicable disease control, minor treatments, use of basic drugs, record-keeping, health education, environmental sanitation and Thailand's rural health system.

Clinical training will take place in smaller groups or individually in various hospitals and rural health facilities.

Ten groups of 25 health assistants will be trained each year (i.e., 250) for 3 years.

(b) *Health Assistants for MCH/FP*

Health assistants for Maternal and Child Health/Family Planning will receive 2 weeks of classroom training and two weeks of practical training. Classroom training will be at the MCH center and will include training in:

- FP program and policies;
- Population problems;
- Human reproduction;
- Specific contraceptive methods;
- History taking;
- Setting up a clinic;
- Sterilization of instruments;
- Basic MCH;
- IEC (especially face-to-face communication);
- Use of simple audio-visual aids;
- Record-keeping procedures;
- Referral system; and
- Role of other health workers.

Practical training will be on a one-to-one basis, typically under the tutelage of a nurse in the hospital to which the health assistant will be assigned.

The project will support the training of 450 health assistants for MCH/Family Planning. Priority in training will be given to the 181 who will be assigned to the 20 AFPH provinces.

Categories	78	79	80	Total
Health Assistants Six-Week Course (Primarily for Midwifery Centers)	100	450	200	750
Health Assistants Four-Week Course (Primarily MCH/FP)	80	420	-	500
TOTAL	180	920	200	1,250

(3) *Input*

This project will provide approximately US$ 243,000 for the training of health assistants. These costs include primarily travel, per diem and training material costs for the trainees, and travel and per diem for the instructors.

d. *Child Nutrition Center Attendants*

(1) *Need*

Child Nutrition Centers were started in 1968 as a means of reaching pre-school children in the rural areas. They are an adjunct to some of the rural health centers and provide day care services and supplementary feeding for children. Currently there are 620 centers in the country, 166 of them in the 20 AFPH provinces.

An average of 30 children are enrolled in each Child Nutrition Center. The 3 Ministries offering day care services (Public Health, Education, and Interior) have agreed to a standardized program of activities and, in cooperation with the Ministry of Agriculture, the Centers provide supplemental protein foods for the children.

These Centers do not limit their activities to the feeding program but include such health related activities as immunizations, periodic physical examinations for the children, and the improvement of environmental factors which influence the children's health. An important aspect of the Child Nutrition Centers is the participation of the mothers in the normal functioning of the centers. Mothers take turns attending the centers, assisting in the preparation of meals, and helping in recreational activities. This first hand experience provides the mothers with practical information about foods and feeding practices. Normal daily activities include reading, group play and games as well as rest periods.

The auxiliary midwife responsible for the management of the center frequently arranges cooking demonstrations and education in nutrition, home food production and family planning for the mothers. Health center attendance appears to increase after a Child Nutrition Center has been added, probably because the Center not only meets a clear need, but also serves to link the community closer to the health center. These Child Nutrition Centers help increase community understanding and acceptance of rural health services by providing a focal point for community participation and education.

When a community decides to construct a Child Nutrition Center, the MOPH supplies the building materials and equipment and the community provides the labor for construction. This helps to ensure that these Centers are built only where they are wanted and needed. Local interest and participation in the future will be enlisted by village health volunteers and health communicators, with the help of the *tambon* health staff.

When a community decides to build a center, one or two local women (depending upon the number of children expected) are selected to be attendants by the midwife and the village committee. These women are sent to the provincial capital for two weeks training. They receive a modest stipend from the Government which is supplemented by fees collected from parents.

(2) *Output*

The project will train up to 180 child nutrition attendants. This training must be conducted on an *ad hoc* basis, since there will only be about 3 trainees per province per year.

(3) *Input*

The total costs for the training of nutrition center attendants will be US$9,000.

e. *Health Volunteers and Health Communicators*

(1) *Need*

The quality and supply of various categories of health manpower have generally failed to keep pace with the demand for services. At the present time, the great majority of Thailand's 46,000 villages have little or no access to modern health care. Even where government health facilities exist in some rural areas, only about 15% of the people who are sick use them. Most of the people buy medicine from the drug store and treat themselves, receive treatment from private clinics, or use traditional healers and Buddhist monks.

Besides the geographical distance from the government health facilities, another reason for underutilization of these services is the perceived social distance between the government health worker and the rural villager. This prevents the patient and the physician or health worker from relating in a constructive manner. Consequently, the health professional is likely to have inadequate information both for diagnosis and treatment and the patient is limited in the care he/she can receive and utilize. In addition, because of these communication problems between government officials and the villagers the diffusion of public health information is quite restricted.

One of the strategies devised by the Fourth Five-Year Plan to counter this communication problem is a reorientation of service delivery away from physicians and nurses toward the use of primary health care workers such as village health volunteers and communicators.

Over the past few years, a variety of health projects in Thailand have made use of different kinds of volunteers. Experience in these projects has shown that in a relatively short period of time, the volunteers became known and accepted as a source of health advice or services. For instance, after the first year of the Lampang Project, nearly 70% of the people in the project area were familiar with the volunteers, and about 55% of these had received advice from the communicators. Nearly all of these persons had followed this advice or intended to do so. About 30% of those who were familiar with the volunteers had turned to them for help during illnesses.

Because of experiences such as these, the RTG decided to launch a nationwide Primary Health Care Program based upon a corps of health volunteers and health communicators at the village level. This cadre of workers will provide essential health services and will also encourage public participation or self-help community services through village community organizations. Primary health care will thus be a health system developed and executed by the rural people with the support of the Government's organized health infrastructure.

The MOPH Health Training Division has been assigned special responsibility for developing the training of these primary health care workers. The training scheme consists of several stages. The first involves:

- Training of the trainers in the essentials of the program, with considerable emphasis on training techniques;
- The establishment of new programs in the provincial and district hospitals and health centers throughout the country to prepare for the training of village health volunteers and health communicators; and
- The revision of curricula for nurses, midwives and sanitarians to include training in teaching medical care.

The second phase is the training of the staff of *tambon* health facilities — the auxiliary midwives and the junior sanitarians — for their role as trainers and technical supervisors of the

village health volunteers and village communicators in their *tambon*. In actual fact, however, it is proposed that all echelons of health service personnel will participate in the training, guidance and motivation of the village volunteers and communicators.

The program calls for each auxiliary midwife and each junior sanitarian to be responsible for organizing the village health volunteer/health communicator program in one village (*muban*) per year. This entails establishing a special village committee or working with an existing committee. Primary health care will strongly rely on existing organizations set up in the villages. Community resources will be used to approach and solve health problems of the villagers, mainly through the network of village health volunteers and health communicators. Traditional practices and medicines will be included when relevant, and the Buddhist temple (*Wat*) and the monks will be involved also.

Communicators will be identified and recruited through socio-metric procedures* and interviews in the village by health center or midwifery staff. Existing traditional health care providers will be eligible and may very likely form the nucleus for these primary health care providers.**

When the health communicators have agreed to serve, the village health committee will select a village health volunteer, who may or may not be one of the communicators. The health communicators will work together with the village health volunteer as a team. They will also hold occasional meetings with the health center staff and/or the village committee.

The village health volunteers will receive 90 hours (6 hours × 15 days) of training, with arrangements to be worked out on an *ad hoc* basis between the volunteer and his/her trainer. After this initial training, on-going, relevant instruction will continue for 2 years.

Responsibilities of the village health volunteer will include:

- Provision of minor health care, simple diagnosis of such illnesses as the common cold, malaria and parasitic infections, and dispensing of government basic pharmaceutical products. The village health volunteers will initially be issued approximately US$ 25.00 worth of drugs. They will sell these to the villagers at a price fixed by the MOPH. This will allow the volunteer a slight profit and will maintain a revolving fund for re-ordering of supplies;
- Supplying condoms and oral contraceptives to women who have been screened for contra-indications by qualified paramedicals;
- Working closely with local health center staff to organize local IEC events;
- Basic health education including MCH, FP, nutrition, communicable diseases, use of family planning and other health services;
- Assisting in vector control, especially the malaria vector, and prevention of endemic diseases (e.g., hookworm);
- Referring patients with more serious health problems to the nearest appropriate health facility;
- Serving as a member of the group of 10 health communicators in his/her village; and
- Acting as the liaison between government officials and the people.

The village health communicators will initially receive 30 hours (6 hours × 5 days) of instruction. This instruction will be an abbreviated version of the training given to the village health volunteer. Subsequently, the VSC will also continue to receive on the job training.

The village health communicator's role will be almost entirely in the IEC area. They will informally advise their neighbors and relatives about MCH, FP, Nutrition, important communicable diseases, sanitation, and other basic health topics. They will promote participation in local IEC events such as film showings, and in mass immunization programs. The village health

* A system devised to identify informal group leaders.

** Traditional healers, primarily the traditional birth attendants, are trained through the USAID/T-supported Population Planning Project (#493-0283).

communicators also encourage people to make use of the health services available in their area, and will work in close collaboration with the village health volunteers.

(2) *Output*

The RTG's ultimate aim is to have one village health volunteer and 10 health communicators available in each village that has no health or midwifery center. With an average of 9-10 villages (*mubans*) per *tambon*, each *tambon* could eventually have about 8 village health volunteers and 80 health communicators.

The national scheme calls for about half of the volunteers to be recruited and trained by the end of the five-year plan period in 1981. In the 20 AFPH provinces, however, recruitment will be accelerated. Thus, by the end of the project period, over half of the villages without health or midwifery centers will be covered (i.e., there will be about 7,900 village health volunteers and 79,000 health communicators in the 20 AFPH provinces).

(3) *Input*

This project will provide US$1,130,000 for the training of sub-district staff, village health volunteers and communicators. These costs include primarily costs for training materials and equipment. Each trainee will be given a manual and a first aid kit.

The phasing of training for these personnel is as follows:

Category	*1978*	*1979*	*1980*	*Total*
Village Volunteers	1,992	2,900	3,000	7,892
Communicators	20,655	29,000	30,000	79,655
TOTAL	22,647	31,900	33,000	87,547

f. *Supervisory and Management Personnel*

(1) *Need*

As discussed in previous sections, the RTG/MOPH will be implementing its Primary Health Care Program in twenty selected provinces. A key element of the PHCP is the use of village volunteers and communicators. Although the proposed project is conceptually uncomplicated, the implementation aspects of this project present management and logistical problems of enormous magnitude. Indeed, the success (or failure) of this project will be due to a large degree to the management and supervisory skills of MOPH staff, particularly at the provincial, district and sub-district level.

Most of the responsibility for implementing this new project will be placed upon the auxiliary midwife and sanitarian at the sub-district (*tambon*) health center. These persons will be supervised by the district health facility staff, either a senior sanitarian, a nurse or midwife. The district staff will be supervised by the provincial health office staff of senior sanitarians, nurses and midwives. The overall management structure represents a typical organizational pyramid.

Because of the increased supervisory responsibilities at the district level, a new post of Deputy District Health Officer has been created. This person will be an experienced junior sanitarian or auxiliary midwife who will be promoted, most likely from one of the sub-district health centers in the 20 AFPH project provinces. This person will assume major responsibilities for management aspects of the health volunteer/communicator program in each district.

(2) *Output*

The RTG/MOPH has recognized the importance of the management aspects of this project and has developed several training programs to upgrade the management and supervisory skills of the provincial and district level health staff. More than 700 provincial and district health supervisory staff in the 20 project provinces will be given management training in courses which range from five days to four weeks in length.

The following table indicates which provincial and district level staff will receive management training:

	Title	Number	Course Duration	Training Frequency
1.	Provincial Chief Medical Officer	20	7 days	2**
2.	Director Technical Health Services	20	7 days	2**
3.	Director Provincial Hospital	23	7 days	1
4.	Chief Planning Section	20	5 days	2**
5.	Chief Training, Education, Health Promotion	40	5 days	1
6.	Director District Hospital	103	5 days	1
7.	District Health Officer	199	5 days	1
8.	Assistant District Health Officer[1]*	199	4 weeks	1
9.	Chief, Promotion Section, District Hospital	103	7 days	1
10.	Provincial Supervisors*	20	4 weeks	1

[1] Newly created position.
* Trained by Health Training Division. All others will be trained by the Health Planning Division.
** These persons will receive training twice, once during the first project year and once during the second.

Training plans, including curricula, have already been developed in anticipation of this project. The overall objective of these management courses will be to ensure that key senior and middle level health and hospital administrators develop the skills necessary to manage this project and other aspects of the provincial health care program. Training topic areas will include health planning, public health administration and hospital management within the context of the newly formed primary health care program. Much of this training will be conducted at the four regional health training centers.

(3) *Input*

This project will provide US$ 90,000 to finance the training costs for this program component. Costs include trainee travel and per diem, costs for training materials and institutional costs.

3. *Research and Evaluation*

(a) *Need*

The RTG's Fourth Five-Year Plan has identified improved health planning and management as one of the nation's five goals in the health sector. One aspect of this Rural Primary Health Care Expansion Project will seek to support the MOPH's efforts in this area.

In 1970, WHO initiated a Planning, Management and Information System (PMIS) Project. The purpose of this effort was to improve the MOPH's capability in national health planning and administration. Expenditures on this project, which ended in 1976, were over US$ 520,000.

As a result of the WHO PMIS project, a number of important accomplishments were achieved, including:

- An increased awareness within the RTG's MOPH of the need for, and usefulness of, sound program planning and management;
- The development of annual operating plans for each of the country's 72 provinces;
- The establishment of a Central Information Center and approximately 20 Provincial Information Centers.* Information Centers for the remaining provinces are being established;
- The development of two information subsystems which are currently being field tested;
- The development of an analytic and evaluation capability within the MOPH to improve implementation of a national health planning process.

At present, the PMIS system is under the direction of the Central Information Center of the Planning and Evaluation Unit in the MOPH. There are, however, several units within the MOPH which also have responsibility for planning, management and monitoring of health

* Not all are congruent with the 20 AFPH provinces.

care services and delivery. For example, the Family Health Division supervises and evaluates the delivery of FP services throughout the country. Also, the Malaria Eradication Division of the Department of Communicable Disease Control is involved in planning and implementation activities in malaria control.

The RTG recognizes that its emphasis on the development of an effective primary health care program, and its efforts to improve the delivery of health services to rural areas will require continuous planning, monitoring and evaluation. It is for this reason that the RTG has included improved health research and evaluation as elements of its goal of improved health planning and management.

The responsibility for supervising and coordinating the planning, research, and evaluation efforts within the MOPH will be in the Health Planning Division. This is part of the Office of the Deputy-Under-Secretary of State for Planning and Evaluation. This Division, established in 1973, will have responsibility for:

- Coordinating all planning, research and evaluation activities within the MOPH;
- Planning, designing and implementing operational and evaluation studies;
- Development of management training programs to ensure that study results and operational improvements are transmitted to the proper supervisory health personnel.

Thus, the RTG clearly understands the need for dynamic planning and evaluation within its health delivery system. It is entrusting the implementation of these efforts to a unit within the MOPH that has already been established and is functioning. The fact that the RTG is willing to use loan funds for this activity further underscores its interest and commitment.

Beyond this, the RTG appreciates the special needs of the AFPH project for research and evaluation. It will, therefore, set up a special unit within the HPD that will be responsible for coordinating all research and evaluation efforts of other systems (e.g., PMIS, NFPP) with those of the AFPH project.

In this context, the MOPH will undertake a number of surveys and studies that will evaluate the progress, performance, acceptance and effectiveness of its health programs. Particular emphasis will be given to the AFPH project and the delivery of services to the rural poor. As a result of these studies and surveys, the MOPH will be able to make necessary adjustment to its project efforts, to correct inadequacies and improve deficiencies.

Given this concern that there be strong coordination of planning, management and evaluation activities throughout the MOPH, particularly as they relate to the RTG/AFPH project, this project will support the strengthening of the evaluation and research unit within the HPD that will be monitoring the RTG/AFPH project.

(b) *Outputs*

As noted above, the research and evaluation unit within the Health Planning Division (HPD) will concentrate its efforts in two key areas:

- Coordination of all planning, research and evaluation activities within the MOPH, as they relate to the AFPH project;
- Operational and evaluation studies.

The HPD will strengthen its coordinating capability with existing data systems (NFPP, PMIS), at the same time that it will seek to improve planning and monitoring activities for the 20 AFPH provinces.

At present, the HPD has identified three studies related to the AFPH project which it plans to implement in 1978:

- An operational assessment of health facilities and manpower in the 20 provinces involved in the AFPH project;

- An evaluation of the training of the village health volunteers and the village health communicators. This study will seek to assess such factors as the relevance of training materials, the adequacy of training methods, and the optimum length of the training period;
- An evaluation of the training of trainers for the village health volunteers and health communicators.

In 1979, the MOPH is planning to implement the following:

- A repeat of the previous year's operational assessment of health facilities and manpower;
- The initiation of patient survey studies based on household interviews;
- Operational studies of the performance of nurse practitioners, auxiliary midwives and health assistants;
- Evaluation studies of village health volunteers and village health communicators.

For 1980, the HPD will repeat the operational study of health facilities and manpower. At present, plans for the remainder of the research and evaluation program for 1980 have not been completed.

(c) *Inputs*

This project will provide US$ 846,000 to support the planning, research and evaluation activities of the Rural Primary Health Care Expansion Project. These funds will assist the MOPH to strengthen the coordinating and monitoring functions of the evaluation and research unit within the HPD particularly as it relates to the RTG/AFPH project. Project assistance will include:

- One full time health care planning research and evaluation specialist over a three year period. This professional will be assigned to the MOPH Division of Health Planning and will assist in the planning, design and implementation of training, operational research, and evaluation studies of the Primary Health Care Program;
- One full time research assistant and a local hire secretary, who will work with the full time health care planning, research and evaluation specialist in the HPD;
- Short term technical consultants with expertise in special areas of planning and evaluation (e.g., health manpower evaluation, household survey techniques, facilities utilization survey methods);
- Equipment and supplies for operational and evaluation studies in the 20 AFPH provinces.

Annex 1 — Attachment 1-A

RURAL PRIMARY HEALTH CARE

PROJECT FINANCIAL PLAN
($millions)

As of , 1978 Project #493-0291

Project Inputs	*AID Loan*	*RTG*	*Total*
Technical Assistance			
(*a*) Long-term Contract	240	-	240
(*b*) Short-term Consultants	90	-	90
Training			
(*a*) Nurse Practitioners*	540	-	540
(*b*) Auxiliary Midwives*	2,297	-	2,297
(*c*) Prov. and Dist. Supervisors	90	-	90
(*d*) Health Assistants	243	-	243
(*e*) VH Volunteers*	498	-	498
(*f*) VH Communicators	632	-	632
(*g*) CNC Attendants	9	-	9
Research and Evaluation	516	-	516
Salaries and Allowances	-	5,230	5,230
Contingency	50	-	50
Inflation	295	-	295
	5,500	5,230	10,730

* Includes Commodity Costs of $553,710 for Medical Kits (NP's 900 × $25; MW 2,250 × $175; VHV 7,900 × $17.40).

Annex 1 — Attachment 1-B

JOINT RTG/USAID EVALUATIONS

Together with the RTG, USAID will evaluate project effectiveness and efficiency. This is a key aspect of the overall evaluation strategy. It is consistent with the RTG's responsibility for designing and implementing improvements in its own health infrastructure.

The joint RTG/USAID evaluations will be conducted by a team composed of:
- RTG representatives from the MOPH and other related Ministries;
- USAID/T health staff;
- USAID/W health staff;
- U.S. non-government experts in rural health development.

It is expected that two such joint evaluations will be conducted. The first (interim evaluation) will take place by the 18th month of the project, and the second (final evaluation) upon the termination of the project.

The evaluation of project effectiveness and efficiency will be related to the specific goals and objectives of the project. In addition, certain evaluation indicators will be utilized. These indicators will be related to the two major elements of the program — training and research/evaluation.

Evaluation indicators will involve such factors as:
- Appropriateness of new skills that are imparted to the health personnel;
- Acceptance of the health personnel by the community in which they work;
- Attitude of patients to the health personnel;

- Integration of the health personnel into the existing health infrastructure;
- Attitudes of the new health personnel to their profession, as well as analysis of retention/drop-out rates;
- Involvement of the health personnel, especially those assigned to the village level facilities, in health related promotive, educational and preventive activities;
- Ability of the RTG to provide logistical support to the newly trained health personnel;
- Ability of the RTG to expand its data system into the 20 AFPH provinces utilizing the newly trained personnel;
- Quality and quantity of research and evaluation studies performed by the Health Planning Division.

ANNEX 2

PROJECT LOAN STANDARD PROVISIONS ANNEX

DEFINITIONS. As used in this annex, the "Agreement" refers to the Project Loan Agreement to which this annex is attached and of which this annex forms a part. Terms used in this annex have the same meaning or reference as in the Agreement.

Article A. PROJECT IMPLEMENTATION LETTERS

To assist Borrower in the implementation of the Project, A.I.D., from time to time, will issue Project Implementation Letters that will furnish additional information about matters stated in this Agreement. The Parties may also use jointly agreed upon Project Implementation Letters to confirm and record their mutual understanding on aspects of the implementation of this Agreement. Project Implementation Letters will not be used to amend the text of the Agreement, but can be used to record revisions or exceptions which are permitted by the Agreement, including the revision of elements of the amplified description of the Project in annex 1.

Article B. GENERAL COVENANTS

Section B.1. CONSULTATION. The Parties will cooperate to assure that the purpose of this Agreement will be accomplished. To this end, the Parties, at the request of either, will exchange views on the progress of the Project, the performance of obligations under this Agreement, the performance of any consultants, contractors or suppliers engaged on the Project, and other matters relating to the Project.

Section B.2. EXECUTION OF PROJECT. The Borrower will:

(*a*) Carry out the Project or cause it to be carried out with due diligence and efficiency, in conformity with sound technical, financial, and management practices, and in conformity with those documents, plans, specifications, contracts, schedules or other arrangements, and with any modifications therein, approved by A.I.D. pursuant to this Agreement; and

(*b*) Provide qualified and experienced management for, and train such staff as may be appropriate for the maintenance and operation of the Project, and, as applicable for continuing activities, cause the Project to be operated and maintained in such manner as to assure the continuing and successful achievement of the purposes of the Project.

Section B.3. UTILIZATION OF GOODS AND SERVICES. (*a*) Any resources financed under the Loan will, unless otherwise agreed in writing by A.I.D., be devoted to the Project until the completion of the Project, and thereafter will be used so as to further the objectives sought in carrying out the Project.

(*b*) Goods or services financed under the Loan, except as A.I.D. may otherwise agree in writing, will not be used to promote or assist a foreign aid project or activity associated with or financed by a country not included in code 935 of the A.I.D. Geographic Code Book as in effect at the time of such use.

Section B.4. TAXATION. (*a*) This Agreement and the Loan will be free from, and the Principal and interest will be paid free from, any taxation or fees imposed under laws in effect in the territory of the Borrower.

(*b*) To the extent that (1) any contractor, including any consulting firm, any personnel of such contractor financed under the Loan, and any property or transactions relating to such contracts, and (2) any commodity procurement transaction financed under the Loan are not exempt from identifiable taxes, tariffs, duties or other levies imposed under laws in effect in the territory of the Borrower, the Borrower will, as and to the extent provided in and pursuant to Project Implementation Letters, pay or reimburse the same with funds other than those provided under the Loan.

Section B.5. REPORTS, RECORDS, INSPECTIONS, AUDIT. The Borrower will:

(*a*) Furnish A.I.D. such information and reports relating to the Project and to this Agreement as A.I.D. may reasonably request;

(*b*) Maintain or cause to be maintained, in accordance with generally accepted accounting principles and practices consistently applied, books and records relating to the Project and to this Agreement, adequate to show, without limitation, the receipt and use of goods and services acquired under the Loan. Such books and records will be audited regularly, in accordance with generally accepted auditing standards, and maintained for three years after the date of last disbursement by A.I.D.; such books and records will also be adequate to show the nature and extent of solicitations of prospective suppliers of goods and services acquired, the basis of award of contracts and orders, and the overall progress of the Project toward completion; and

(*c*) Afford authorized representatives of a Party the opportunity at all reasonable times to inspect the Project, the utilization of goods and services financed by such Party, and books, records and other documents relating to the Project and the Loan.

Section B.6. COMPLETENESS OF INFORMATION. The Borrower confirms:

(*a*) That the facts and circumstances of which it has informed A.I.D., or caused A.I.D. to be informed, in the course of reaching agreement with A.I.D. on the Loan, are accurate and complete, and include all facts and circumstances that might materially affect the Project and the discharge of responsibilities under this Agreement;

(*b*) That it will inform A.I.D. in timely fashion of any subsequent facts and circumstances that might materially affect, or that it is reasonable to believe might so affect, the Project or the discharge of responsibilities under this Agreement.

Section B.7. OTHER PAYMENTS. Borrower affirms that no payments have been or will be received by any official of the Borrower in connection with the procurement of goods or services financed under the Loan except fees, taxes, or similar payments legally established in Thailand.

Section B.8. INFORMATION AND MARKING. The Borrower will give appropriate publicity to the Loan and the Project as a program to which the United States has contributed, identify the Project site, and mark goods financed by A.I.D., as described in Project Implementation Letters.

Article C. PROCUREMENT PROVISIONS

Section C.1. SPECIAL RULES. (*a*) The source and origin of ocean and air shipping will be deemed to be the ocean vessel's or aircraft's country of registry at the time of shipment.

(*b*) Premiums for marine insurance placed in Thailand will be deemed an eligible Foreign Exchange Cost, if otherwise eligible under section C.7(*a*).

(*c*) Any motor vehicle financed under the Loan will be of United States manufacture, except as A.I.D. may otherwise agree in writing.

Section C.2. ELIGIBILITY DATE. No goods or services may be financed under the Loan which are procured pursuant to orders or contracts firmly placed or entered into prior to the date of this Agreement, except as the Parties may otherwise agree in writing.

Section C.3. PLANS, SPECIFICATIONS, AND CONTRACTS. In order for there to be mutual agreement on the following matters, and except as the Parties may otherwise agree in writing:

(*a*) The Borrower will furnish to A.I.D., upon preparation:

(1) Any plans, specifications, procurement of construction schedules, contracts, or other documentation relating to goods or services to be financed under the Loan, including documentation relating to the prequalification and selection of contractors and to the solicitation of bids and proposals. Material modifications in such documentation will likewise be furnished A.I.D. upon preparation;

(2) Such documentation will also be furnished to A.I.D., upon preparation, relating to any goods or services which, though not financed under the Loan, are deemed by A.I.D. to be of major importance to the Project. Aspects of the Project involving matters under this subsection (*a*)(2) will be identified in the Project Implementation Letters;

(*b*) Documents related to the prequalification of contractors, and to the solicitation of bids or proposals for goods and services financed under the Loan will be approved by A.I.D. in writing prior to their issuance, and their terms will include United States standards and measurements;

(*c*) Contracts and contractors financed under the Loan for engineering and other professional services, for construction services, and for such other services, equipment or materials as may be specified in Project Implementation Letters, will be approved by A.I.D. in writing prior to execution of the contract. Material modifications in such contracts will also be approved in writing by A.I.D. prior to execution; and

(*d*) Consulting firms used by the Borrower for the Project but not financed under the Loan, the scope of their services and such of their personnel assigned to the Project as A.I.D. may specify, and construction contractors used by the Borrower for the Project but not financed under the Loan shall be acceptable to A.I.D.

Section C.4. REASONABLE PRICE. No more than reasonable prices will be paid for any goods or services financed, in whole or in part, under the Loan. Such items will be procured on a fair and, to the maximum extent practicable, on a competitive basis.

Section C.5. NOTIFICATION TO POTENTIAL SUPPLIERS. To permit all United States firms to have the opportunity to participate in furnishing goods and services to be financed under the Loan, the Borrower will furnish A.I.D. such information with regard thereto, and at such times, as A.I.D. may request in Project Implementation Letters.

Section C.6. SHIPPING. (*a*) Goods which are to be transported to Thailand may not be financed under the Loan if transported either: (1) on an ocean vessel or aircraft under the flag of a country which is not included in A.I.D. Geographic Code 935 as in effect at the time of shipment, or (2) on an ocean vessel which A.I.D., by written notice to the Borrower, has designated as ineligible, or (3) under an ocean or air charter which has not received prior A.I.D. approval.

(*b*) Costs of ocean or air transportation (of goods or persons) and related delivery services may not be financed under the Loan, if such goods or persons are carried: (1) on an ocean vessel under the flag of a country not, at the time of shipment, identified under the paragraph of the Agreement entitled "Procurement Source: Foreign Exchange Costs", without prior written A.I.D. approval, or (2) on an ocean vessel which A.I.D., by written notice to the Borrower, has designated as ineligible, or (3) under an ocean vessel or air charter which has not received A.I.D. approval.

(*c*) Unless A.I.D. determines that privately-owned United States-flag commercial ocean vessels are not available at fair and reasonable rates for such vessels, (1) at least fifty percent (50%) of the gross tonnage of all goods (computed separately for dry bulk carriers, dry cargo liners and tankers) financed by A.I.D. which may be transported on ocean vessels will be transported on privately-owned United States-flag commercial vessels, and (2) at least fifty percent (50%) of the gross freight revenue generated by all shipments financed by A.I.D. and transported to Thailand on dry cargo liners shall be paid to or for the benefit of privately-owned United States-flag commercial vessels. Compliance with the requirements of (1) and (2) of this subsection must be achieved with respect to both any cargo transported from U.S. ports and any cargo transported from non-U.S. ports, computed separately.

Section C.7. INSURANCE. (*a*) Marine insurance on goods financed by A.I.D. which are to be transported to Thailand may be financed as a Foreign Exchange Cost under this Agreement, provided (1) such insurance is placed at the lowest available competitive rate, and (2) claims thereunder are payable in the currency in which such goods were financed or in any freely convertible currency. If the Borrower, by statute, decree, rule, regulation, or practice discriminates with respect to A.I.D.-financed procurement against any marine insurance company authorized to do business in any State of the United States, then all goods shipped to Thailand financed by A.I.D. hereunder will be insured against marine risks and such insurance will be placed in the United States with a company or companies authorized to do a marine insurance business in a State of the United States.

(*b*) Except as A.I.D. may otherwise agree in writing, the Borrower will insure, or cause to be insured, goods financed under the Loan imported for the Project against risks incident to their transit to the point of their use in the Project; such insurance will be issued on terms and conditions consistent with sound commercial practice and will insure the full value of the goods. Any indemnification received by the Borrower under such insurance will be used to replace or repair any material damage or any loss of the goods insured or will be used to reimburse the Borrower for the replacement or repair of such goods. Any such replacement will be of source and origin of countries listed in A.I.D. Geographic Code 935 as in effect at the time of replacement, and, except as the Parties may agree in writing, will be otherwise subject to the provisions of the Agreement.

Section C.8. U.S. GOVERNMENT-OWNED EXCESS PROPERTY. The Borrower agrees that wherever practicable United States Government-owned excess personal property, in lieu of new items financed under the Loan, should be utilized. Funds under the Loan may be used to finance the costs of obtaining such property for the Project.

Article D. TERMINATION; REMEDIES

Section D.1. CANCELLATION BY BORROWER. The Borrower may, by giving A.I.D. 30 days' written notice, cancel any part of the Loan which has not been disbursed or committed for disbursement to third parties.

Section D.2. EVENTS OF DEFAULT; ACCELERATION. It will be an "Event of Default" if Borrower shall have failed: (*a*) to pay when due any interest or installment of Principal required under this Agreement, or (*b*) comply with any other provision of this Agreement, or (*c*) to pay when due any interest or installment of Principal or other payment required under any other loan, guaranty or other agreement between the Borrower or any of its agencies and A.I.D. or any of its predecessor agencies. If an Event of Default shall have occurred, then A.I.D. may give the Borrower notice that all or any part of the unrepaid Principal will be due and payable sixty (60) days thereafter, and, unless such Event of Default is cured within that time:

(1) Such unrepaid Principal and accrued interest hereunder will be due and payable immediately, and

(2) The amount of any further disbursements made pursuant to then outstanding commitments to third parties or otherwise will become due and payable as soon as made.

Section D.3. SUSPENSION. If at any time:

(*a*) An Event of Default has occurred; or

(*b*) An event occurs that A.I.D. determines to be an extraordinary situation that makes it improbable either that the purpose of the Loan will be attained or that the Borrower will be able to perform its obligations under this Agreement; or

(*c*) Any disbursement by A.I.D. would be in violation of the legislation governing A.I.D.; or

(*d*) The Borrower shall have failed to pay when due any interest, installment of Principal or other payment required under any other loan, guaranty, or other agreement between the Borrower or any of its agencies and the Government of the United States or any of its agencies;

then A.I.D. may:

(1) Suspend or cancel outstanding commitment documents to the extent they have not been utilized through irrevocable commitments to third parties or otherwise, giving prompt notice thereof to the Borrower;

(2) Decline to issue additional commitment documents or to make disbursements other than under existing ones; and

(3) At A.I.D.'s expense, direct that title to goods financed under the Loan be transferred to A.I.D. if the goods are from a source outside Thailand, are in a deliverable state and have not been offloaded in ports of entry of Thailand. Any disbursement made under the Loan with respect to such transferred goods will be deducted from Principal.

Section D.4. CANCELLATION BY A.I.D. If, within sixty (60) days from the date of any suspension of disbursements pursuant to section D.3, the cause or causes thereof have not been corrected, A.I.D. may cancel any part of the Loan that is not then disbursed or irrevocably committed to third parties.

Section D.5. CONTINUED EFFECTIVENESS OF AGREEMENT. Notwithstanding any cancellation, suspension of disburements, or acceleration of repayment, the provisions of this Agreement will continue in effect until the payment in full of all Principal and accrued interest hereunder.

Section D.6. REFUNDS. (*a*) In the case of any disbursement which is not supported by valid documentation in accordance with this Agreement, or which is not made or used in accordance with this Agreement, or which was for goods or services not used in accordance with this Agreement, A.I.D., notwithstanding the availability or exercise of any other remedies provided for under this Agreement, may require the Borrower to refund the amount of such disbursement in United States dollars to A.I.D. within sixty [(60)] days after receipt of a request therefor. The rights to require such a refund of a disbursement will continue, notwithstanding any other provision of this Agreement, for three years from the date of the last disbursement under this Agreement.

(*b*) (1) Any refund under the preceding subsection, or (2) any refund to A.I.D. from a contractor, supplier, bank or other third party with respect to goods or services financed under the Loan, which refund relates to an unreasonable price for or erroneous invoicing of goods or services, or to goods that did not conform to specifications, or to services that were inadequate, will (A) be made available first for the cost of goods and services required for the Project, to the extent justified, and (B) the remainder, if any, will be applied to the installments of Principal in the inverse order of their maturity and the amount of the Loan reduced by the amount of such remainder.

Section D.7. NONWAIVER OF REMEDIES. No delay in exercising any right or remedy accruing to a Party in connection with its financing under this Agreement will be construed as a waiver of such right or remedy.