

PD-ART-928
116565

CONFORMED COPY

A.I.D. Project No. 493-0280

A.I.D. Loan No. 493-T-019

L O A N A G R E E M E N T

(Thailand: Agricultural Extension Outreach Loan)

Between the

KINGDOM OF THAILAND

and the

UNITED STATES OF AMERICA

Dated: May 31, 1977

A

TABLE OF CONTENTS

AGRICULTURAL EXTENSION OUTREACH LOAN AGREEMENT

	<u>Page</u>
Article 1: The Agreement	1
Article 2: The Project	2
Article 3: Financing	3
SECTION 3.1. The Loan	3
SECTION 3.2. Borrower Resources for the Project	3
SECTION 3.3. Project Assistance Completion Date	4
Article 4: Loan Terms	5
SECTION 4.1. Interest	5
SECTION 4.2. Repayment	6
SECTION 4.3. Application, Currency, and Place of Payment	6
SECTION 4.4. Prepayment	6
SECTION 4.5. Renegotiation of Terms	7
SECTION 4.6. Termination on Full Payment	8
Article 5: Conditions Precedent to Disbursement	8
SECTION 5.1. First Disbursement	8
SECTION 5.2. Additional Disbursement	9
SECTION 5.3. Notification	10
SECTION 5.4. Terminal Dates for Conditions Precedent	10
Article 6: Special Covenants	10
SECTION 6.1. Project Evaluation	10
SECTION 6.2. IBRD Loan Agreement	11

B

	<u>Page</u>
Article 7: Procurement Source	11
SECTION 7.1. Foreign Exchange Costs	11
SECTION 7.2. Local Currency Costs	11
Article 8: Disbursements	12
SECTION 8.1. Disbursement for Foreign Exchange Costs	12
SECTION 8.2. Disbursement for Local Currency Costs	13
SECTION 8.3. Other Forms of Disbursement	14
SECTION 8.4. Rate of Exchange	14
SECTION 8.5. Date of Disbursement	14
Article 9: Miscellaneous	15
SECTION 9.1. Communications	15
SECTION 9.2. Representatives	15
SECTION 9.3. Standard Provisions Annex	16
 ANNEX I Description of the Project	
Attachment A Implementation Plan	
Attachment B Financial Plan	
Attachment C Evaluation Plan	
 ANNEX II Loan Project Standard Provisions Annex	

C

-1-

A.I.D. Project No. 493-0280

A.I.D. Loan No. 493-T-019

PROJECT LOAN AGREEMENT

Dated May 31, 1977

Between the Kingdom of Thailand (Borrower), acting through the Ministry of Finance (MOF), and the United States of America, acting through the United States Operations Mission to Thailand of the Agency for International Development ("A.I.D.").

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

Definition of Project. The Project, which is further described in Annex 1, will consist of enhancing the capability of the Department of Agricultural Extension (DOAE) to help farmers adopt improved practices which will increase agricultural production and raise farmers' incomes, through the expansion of the DOAE's extension personnel and the establishment of comprehensive training programs for such personnel to increase the quality and effectiveness of their services. Annex 1, attached, amplifies the definition of the Project contained in this Article.

Within the limits of the definition of the Project in this Article, 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 Three Million United States ("U.S.") dollars (\$3,000,000) ("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 Project is an integral element of the RTG National Agricultural Extension Project (NAEP), a coordinated enterprise having a total cost estimated at Fifty-Eight Million Five Hundred Thousand U.S. dollars (US\$58,500,000). The NAEP is being undertaken by the Borrower with the assistance

of a loan of Twenty-Eight Million U.S. dollars (US\$28,000,000) from the International Bank for Reconstruction and Development to finance the construction of physical facilities, the acquisition of commodities, and certain training and advisory services. The resources provided by the Borrower for the NAEP, including costs borne on an "in-kind" basis, will be not less than the equivalent of Twenty-Seven Million Five Hundred Thousand U.S. dollars (US\$27,500,000).

SECTION 3.3. Project Assistance Completion Date.

(a) The "Project Assistance Completion Date" (PACD), which is ~~June 30, 1981,~~ or such other date as the Parties may 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 date of the first disbursement hereunder and at the rate of three percent (3%) per annum thereafter on the outstanding 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 forty (40) years from the date of the first disbursement of the Loan in sixty-one (61) 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 9.2, 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 of 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) A request for an initial quarterly advance to meet incremental training costs, supported by detailed projections of anticipated expenditures for such costs. (The same such request shall be submitted for any further quarterly advances).

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 any purpose other than the first two quarterly advances to meet incremental 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) Revisions updating the Implementation and Financial Plans attached to Annex 1 as Attachments A and B; and

(b) Evidence that the Borrower has entered into a loan agreement with the International Bank for Reconstruction and Development (IBRD) which has been deemed effective and which in A.I.D.'s judgment will provide resources adequate to complete the NAEP (in conjunction with those resources provided by the Borrower and A.I.D.), and which contains terms satisfactory to A.I.D. concerning the provision of training facilities, extension agent housing, training equipment and vehicles for extension agent transportation, and augmentation of staff personnel, staff reorganization, and delegations of authority.

SECTION 5.3. Notification. When A.I.D. has determined that the conditions precedent specified in Sections 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 and Section 5.2(a) have not been met within ninety (90) days from the date of this Agreement, or if all of the conditions specified in Section 5.2(b) have not been met within one hundred and eighty (180) days from the date of this Agreement, or such later date or dates, as A.I.D. may agree to 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. Except as the Parties may otherwise agree in writing, the Borrower will carry out an evaluation program for the Project in accordance with the Evaluation Plan set forth as Attachment C to Annex 1 to the Agreement.

SECTION 6.2. IBRD Loan Agreement. The Borrower covenants that it will carry out the arrangements under the IBRD loan agreement described in Section 5.2 above, and agrees that any default in the performance of Borrower's undertakings under that loan agreement may, at A.I.D.'s option, be deemed an Event of Default under this Agreement.

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 goods or 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 submitting to A.I.D., with necessary supporting documentation as prescribed in Project Implementation Letters, (A) requests for reimbursement for such goods or services, or (B) requests for A.I.D. to procure commodities or services in Borrower's behalf for the Project; or

(2) by requesting A.I.D. (A) 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, or (B) to issue Letters of Commitment or other assurances directly to one or more contractors or suppliers, committing A.I.D. to pay such contractors or suppliers 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) Disbursements of local currency will be made not more often than quarterly, commencing with the first full month after satisfaction of the conditions precedent specified in Section 5.1 above. For the first four quarters the Borrower may request disbursements in advance to cover anticipated eligible Local Currency Costs; for the fifth and succeeding quarters disbursements will be made on a reimbursement basis.

(c) The local currency needed for disbursements 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(b).

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 Operations
Mission to Thailand
American Embassy
Bangkok, Thailand

Cable Address: USOM
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 Operations Mission to Thailand, 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

UNITED STATES OF AMERICA

BY: /s/ Suphat Sutatum

BY: /s/ Charles S. Whitehouse

Minister of Finance

Ambassador

DESCRIPTION OF THE PROJECT

This Project is one element of a joint Royal Thai Government, IBRD, and AID effort to strengthen and expand the Department of Agricultural Extension (DOAE) services to farmers in rural Thailand. The total Project is called the National Agricultural Extension Project. The AID element is called, by AID, the Agricultural Extension Outreach Project. Over a four-year period extension services will be expanded and upgraded in thirty-three Provinces to meet the needs of 2,200,000 farm families, 60% of Thailand's rural population that till 54% of the land. The DOAE will be reorganized to move responsibility with commensurate authority to the field; office, housing and training facilities will be constructed; transportation will be provided to extension personnel; and at least one Agent will be recruited, trained and placed in each of 3,200 sub-districts (Tambons) in the Project area. At least one Model Farmer will be selected in each of 29,000 villages as the focal point for extension activities in that village.

Training, aimed at increasing the capability of the DOAE and development of its staff, is a central feature of the Project. New and existing staff will be trained in extension methodology and relevant agricultural knowledge for their job location. Through the AID-financed element of the Project, extension personnel at all levels will be trained and made to understand their responsibilities. Training emphasis will be on making the trainee responsive to the rural farmer; helping the farmer solve specific local production problems, improve his welfare, minimize his risks and/or make greater profit. Training programs and Project plans will be designed to satisfy these objectives. The Project is developed on the premise that the future of agricultural development in Thailand will be largely determined by the skills, knowledge and problem solving capabilities of the rural Thai farmers themselves.

The purpose of the Project then is to provide effective agricultural extension services at the village level in the thirty-three Project Provinces.

Achievement of the Project purpose will contribute to a higher goal; that is to increase the productivity and income of people who live in the rural areas of Thailand, with emphasis on the poorer small farmer.

It is expected that at the end of this Project the following conditions will exist:

- A system of pre-service and in-service training for extension personnel operating effectively in 33 Provinces.
- Effective coverage of Villages in 33 participating Provinces by Extension Agents.
 - Ratio of Extension Agents to farm families is at least 1:800.
 - Average frequency of Agent visits per Village will be at least twice a month.
- Routine interaction between researchers, extension personnel, and farmers established at Village and District levels.
- 25% of farmers in Project Villages are adopting new practices by the end of 1981.
- Reduction of the gap between current and potential crop yields of at least 50% based on local research stations yields.
- Farmers' views and needs influence RTG decisions and plans for extension programs.
- RTG decision to expand Project coverage to remaining 38 Provinces.

To bring about these expected conditions new personnel will be recruited; new and existing personnel will be trained; and a farmer-responsive organizational framework will be established that is linked with research activities, and which allows feedback of information from small farmers to government for action.

1. People to be Involved

The Project will link extension personnel to the rural farmer. At least one unpaid Model Farmer will be selected from each village. These farmers will be the focal point for the activities of the Tambon Extension Agent; e.g. site of new cropping practice demonstrations, on-farm research

trials, farmer training sites, etc. Model Farmers will be selected on the basis of their progressive attitude, leadership, respect of peers, etc. Over the life of the Project approximately 29,000 Model Farmers will be selected and their farms will be used to prove the benefits of new cropping techniques.

At least one Agent will be placed at the next higher administrative level, the Tambon. These Agents will be full time RTG civil servants and will be recruited mainly from Vocational Agriculture Schools. Priority will be given to those graduates with agricultural backgrounds, who are from the area to which they will be assigned and have the ability to relate easily to farmers. Over the life of the Project approximately 3,200 Tambon Agents will be recruited, trained, and placed.

At the District level approximately three Extension Agents, including one chief, will be responsible for extension activities in that District. Although some recruitment will be necessary, most of these people are available from existing staff. Limited numbers of new recruits will also be necessary to staff the Provincial, Regional, and National levels.

2. Training Project Personnel

Training will be provided to personnel at all administrative levels including Regional Subject Matter Specialists and Training Officers, Provincial Agents, District Agents, Tambon Agents.

Training modules will be developed for each crop to be emphasized under the Project. The segments of the module, fitted to each level of training, will vary in complexity, e.g. extensive information in the Regional Subject Matter Specialist segment and a relatively simple segment for the Tambon Agent. Following training, the appropriate segment of the module will be used by the Extension Officers as their information handbook on that crop. Emphasis at all levels will be on providing technical information relevant to the farmers' needs and on training that will make the Extension Officer better able to effectively serve the Thai farmer.

No formal training sessions are planned for the farmers. Rather the emphasis will be on face to face contacts of Agents and farmers and observations and practical training

on the Model Farmers' farms. After the farmers have made the decision to "risk" adopting new cropping techniques, the Agents will assist them with their production, credit, and marketing problems.

Training at the higher levels will be based on "real" farm production problems and in addition to introducing new cropping technology will include training on credit access, marketing sources, establishing rapport with farmers, etc.

3. The Organizational Framework

The DOAE extension network will be reorganized and responsibility with commensurate authority delegated to focus the activities of extension personnel at all levels toward the rural farmer and his family. New working procedures will be developed to link the DOAE more closely with the farmer.

An Inter-Ministerial level National Extension Committee will be formed to coordinate Project implementation and extension activities of the DOAE with other related elements, e.g. agricultural input supply, irrigation, credit, marketing, etc. Provincial Extension Working Groups will coordinate Provincial Agricultural Extension Services with other related activities in the Provinces. Provincial Technical Working Groups will determine research needs for the Province.

The Project design recognizes that reorganization is not the solution--but reorganization accompanied by authority delegated to the lower levels is needed to increase services to the rural farmer.

The Project further recognizes the extensive gap between research and extension. Systems will be developed and incorporated into the Project to close this gap through on-farm research trials, exchange of research and extension personnel, local committees (District - Tambon) voicing research needs to the National Extension and Provincial Extension Committees directing activities of researchers. The feedback of information from the farmer level to all the higher levels will be encouraged and promoted by evaluating Extension Agents at all levels on their responsiveness to farmers.

IMPLEMENTATION PLAN

This Project is of four years duration. Each year during the four years new Provinces will be brought into the Project and training will be initiated at all levels. Once the training has been initiated it is a continuing exercise. Training will have been initiated in all of the 33 Provinces to be included in the Project by the end of FY 1980.

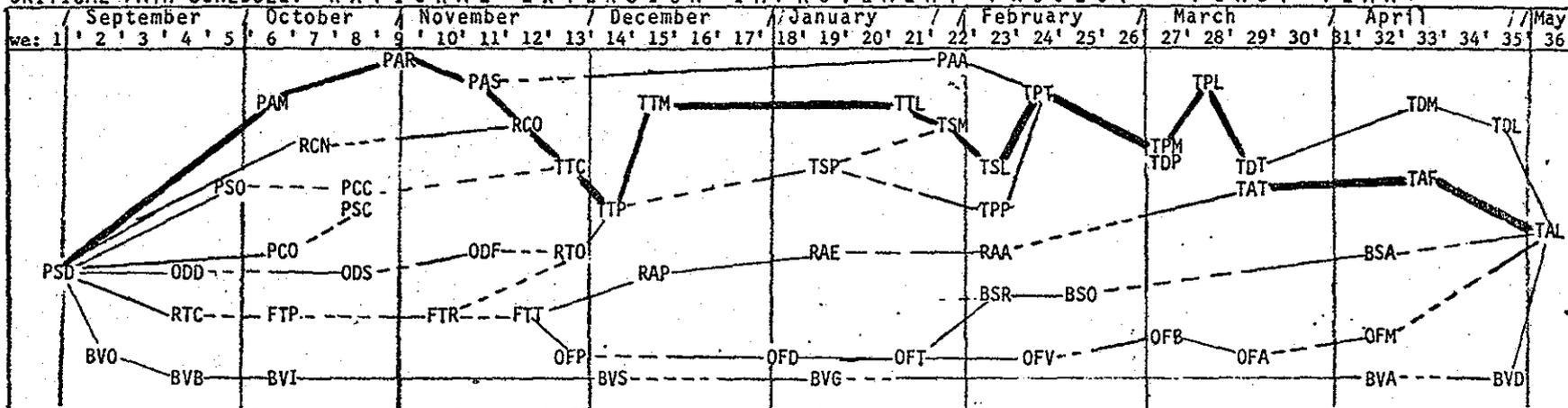
1. PPT and CPS Charts

The step-by-step schedule of implementation will be spelled out on the Project Performance Tracking (PPT) Chart and is on the Critical Path Schedule (CPS) (Table A-1), which details the tasks and the critical path for the first-year operation. Activities are further detailed and quantified in Annex I and in the Logical Framework (Annex C of the Project Paper). Four salient features should be noted:

- (i) The whole multiplier cascade of annual training has a long annual cycle. As shown on the CPS Chart, it is 22 weeks from the beginning of the Train-the-Trainers Workshop (TTM, week 15) to the end of the course for the Tambon Agents (TAL, week 36). This whole sequence must be repeated for at least the first three years of the Project.
- (ii) This means that the launching and on-time completion of the training sequence determines when action on demonstrations can start in the field. In the first year, work on demonstrations cannot start until the second week in May; in subsequent years the training can start earlier and the Tambon Agents can start work in the field in April.
- (iii) The timing of the first-year operation is heavily dependent on early implementation actions. As shown on the CPS recruitment of an initial consultant (RCO, week 12), is essential to get TTC (Train Trainers, Curriculum Set) by week 14, so that the whole sequence can start on time. From week 6 to week 12, AID/W is on the critical path.

CRITICAL PATH SCHEDULE: NATIONAL EXTENSION IMPROVEMENT PROJECT -- FIRST YEAR

Table A-1



B Buy	F Funding	OF Organize farmers	P Planning	R Recruitment	T Training
S = Supplies for demonstrations	T = Thai budget	P = Province-level presentation	(1st yr. program)	C = Consultants(US)	T = Trainers
V = Vehicles	P = Parliamentary approval	D = District-level presentation (to Kamnan)	C = Crop subject matter	T = Trainers & Technical staff	S = Senior officers
R = Requirements determined	R = Released to provinces	T = Tambon-level 1st meeting	S = Schedule	A = tambon Agents	P = Prov/Regional officers
O = Original docs. (or Ordered)	T = Transferred to provinces	V = Village-level 1st meeting	D = Drafted	C = CSC & Cabinet approval	D = District officers
B = Bank approval	OD Organize Divisions (of DoAE)	B = Board of FA elected	O = Orig. Office approval	P = Publish vacancies	A = tambon Agents
I = Invitations to bid	D = Drafted	A = Approval of FA Board	C = Concurrences**	E = Examinations	C = Curriculum set
S = Submit tenders	S = Structure & Staff approved	M = Model farmers selected	PA Project by AID (Proj. Paper & loan)	N = Nominated	P = Preparations completed
C = Contracted	F = Functioning		M=Mission signoff	O = On board	T = crop Technology part begins
A = Arrived*			R=Review by Bureau		M = extension Methodology part begins
D = Distributed			S=Signoff on PP		F = First session ends
			A=loan Agreement Approved		L = Last session ends

* need new regulation on Motorbikes

** of Governors, provincial Ag Officers, etc.

- (iv) The RTG Project Management Staff is emphasizing the use of the Critical Path Method (CPM) in keeping this Project operating on time. A Thai version of the CPS is being presented to all involved in the Project as the official schedule. At the request of the RTG Project Management, the Design Team has given the planning section of the Division a thorough course in the application of the Critical Path Method.

Subsequently, two CPS Charts will schedule the operation for each year; the first will schedule the preparations for the training cycle, and the second will schedule the training cycle and preparations for demonstrations.

2. Technical Assistance

The AID loan will provide funding for 48 months of technical assistance for a full time Agricultural Extension Training Advisor and for 15 person-months of consultant services. The long term advisor will assist with all aspects of the training programs that make up the Project. The consultants will assist in the areas of (1) extension training, (2) production of audio-visual aids, and (3) training module evaluation. Position descriptions for both the long-term advisor and the short-term consultants are included in Annex B-3 of the Project Paper.

The long-term advisor is expected to arrive in July, 1977. The first of the short-term consultants will be needed as soon as the advisor has had an opportunity to get a feel for the Project and the directions he wants to go-- in other words, within at least two months of the advisor's arrival. At this time it is not possible to determine an exact scheduling for the consultants, but it would be during the first three years of Project implementation, in about equal number of person months each year.

The Development Support Communications Services (DSCS) of the UNDP will, during the first year, establish methods for and assist in evaluating/monitoring on a continuing basis and assist with developing DOAE capability in preparation and utilization of training materials. During the first year this assistance will be funded in part by AID. After that time DSCS expects to have its own funds available for such assistance.

3. Coordination with IBRD Loan

IBRD staff members who have been working in Thailand with the Bank's documents for the proposed loan estimate that their loan will be signed by July, 1977. Procurement of training materials and construction of training centers could begin at that time. Given the amount of equipment already available to DOAE and the training facilities available in the Northeast, the implementation area for the first year, such a schedule of IBRD inputs would combine well with the AID Project.

In the event that the IBRD Loan signing is delayed, the Bank has authorized and the RTG is using funds, now available, from the Northeast Rural Development Loan for immediate implementation.

4. AID Monitoring Procedures

AID's monitoring of the Project will be carried out by the USOM Project Officer assigned to the Project. He or she will maintain a close working relationship with counterparts in the DOAE. As the Project progresses the USOM Project Officer will be provided with reports on the inclusion of new Provinces, number of persons trained, etc. On-site personal visits will provide information about the quality of training, etc.

5. Disbursement Procedures and Schedule

With the exception of technical assistance from the U.S. Advisors, all costs under this loan will be local currency. Dollar funds will remain in the U.S. Treasury and will be disbursed by AID directly to the recipient upon request from the RTG.

Disbursements of local currency will be made as outlined in Section 8.2 of the Loan Agreement. Quarterly advances will be made for the first year. Reimbursement procedures will be used for the remaining three years.

It is anticipated that, with RTG approval, USOM will also make some direct payments of local currency, e.g. in the case of DSCS.

24

FINANCIAL PLAN

1. Overall Financing

The cost estimates for the total Project, including RTG, AID, and IBRD inputs are shown on Table B-1. Details regarding the RTG and IBRD inputs can be found in the financial backup data, Annex 8 of the August 31, 1976 IBRD Appraisal of the National Agricultural Extension Project. The total Project cost is \$58.5 million with the following breakdown by funding source:

RTG	\$27.5 million	47.5%
IBRD	28.0 million	47.5%
AID	<u>3.0 million</u>	<u>5.0%</u>
	\$58.5 million	100.0%

The IBRD will cover all foreign exchange costs (\$22 million) with the exception of \$490,000 from AID for the training element consultants. In addition the IBRD will cover the local currency costs (\$6 million) not covered by the RTG or AID.

The AID Loan of \$3 million will cover costs (\$2.5 million) directly attributed to the initial and in-service training element of the Project as well as foreign exchange costs for technical assistance in the training area (\$0.5 million). Subject to the availability of funds, AID expects to negotiate an agreement granting up to \$100,000 to assist in meeting the costs of evaluation.

2. U.S. Assistance

Table B-2 gives the budget estimate for the AID Loan. All estimates were developed around the number of class sessions planned for trainees in each Region. Training for Regional/Provincial Officers is two weeks; training for District Officers is four weeks. New Tambon Agents receive pre-service training of five weeks; in-service Agents receive refresher/updating training of two weeks.

Table B-3 provides the figures for the numbers of each geographic entity--Village, Tambon, District, Province and Region--to be covered in each year of the Project. Table

B-4 gives the figures, based on the status of the participants, for the number of sessions to be held and the number of participants in each session.

3. Disbursing Procedures

a. Dollar

Foreign exchange costs under the loan for technical advisory services are expected to be disbursed through the usual Letter of Commitment/Letter of Credit procedure. Dollars under the proposed \$100,000 grant portion of the Project are expected to be disbursed through the direct disbursement method.

b. Local Currency

Under the \$2,510,000 local currency portion of the loan disbursement will be made on a quarterly advance basis during the first year of the Project; subsequent disbursements will be made on a quarterly reimbursement basis. The four quarterly advance disbursements will be made upon receipt of detailed cost estimates reflecting anticipated cash requirements during the quarter for which the advance is requested and, except for the first advance, an accounting for the funds advanced for the proceeding quarter. Subsequent disbursements will be made in reimbursement of amounts expended for eligible costs.

c. Disbursement Schedule

Disbursements, both Dollar and local currency for the Loan portion, by FY of Project implementation are estimated to be:

Year I, FY 1977	\$396,000
Year II, FY 1978	751,000
Year III, FY 1979	882,000
Year IV, FY 1980	<u>971,000</u>
	<u>\$3,000,000</u>

TOTAL PROJECT COST ESTIMATE

NATIONAL AGRICULTURAL EXTENSION PROJECT.

RTG - AID - IBRD

<u>Item</u>	<u>Local Currency</u>	<u>Foreign Exchange</u>	<u>Total</u>
	(US\$ '000)		
<u>Capital Costs</u>			
Civil works	5,420	3,610	9,030
Vehicles	-	5,750	5,750
Equipment and furniture	990	2,310	3,300
Subtotal	6,410	11,670	18,080
Contingencies	1,100	1,370	2,470
Subtotal	7,510	13,040	20,550
<u>Academic Training and Consultants</u>			
Overseas training	-	440	440
Local academic training	150	-	150
Consultants (extension)	80	1,580	1,660
Consultants (civil works)	820	-	820
*Consultants (training element)	-	490	490
Subtotal	1,050	2,510	3,560
<u>Incremental Operating Costs</u>			
O&M buildings, equipment and furniture	1,355	70	1,425
O&M vehicles	585	2,330	2,915
Salaries	14,290	-	14,290
Extension activities	665	-	665
*In-Service training	2,215	-	2,215
Monitoring	280	-	280
DOAE admin. overhead	775	-	775
Subtotal	20,165	2,400	22,565
Subtotal project costs	28,725	17,950	46,675
Expected price increases	7,285	4,540	11,825
Total Project Costs	36,010	22,490	58,500**

* Indicate line items covered by the AID Loan, in addition \$400,000 is planned for incremental training staff salaries. See Table B-2.

** Does not include AID grant portion (\$100,000).

27

PROJECT U.S. ASSISTANCE BUDGET

<u>Budget Element</u>	<u>FY 1977</u>	<u>FY 1978</u>	<u>FY 1979</u>	<u>FY 1980</u>	<u>Total</u>
<u>Local Currency Costs (P 000's)</u>					
<u>Per Diem</u>					
Training Staff	228	456	570	570	
Regional/Provincial Officers	36	239	150	198	
District Officers	65	575	364	520	
Tambon Agents	<u>1,830</u>	<u>3,402</u>	<u>3,007</u>	<u>2,832</u>	
Total	<u>2,159</u>	<u>4,672</u>	<u>4,091</u>	<u>4,120</u>	15,042
<u>Travel</u>					
Training Staff	40	80	100	100	
Regional/Provincial Officers	4	15	25	33	
District Officers	52	17	28	40	
Tambon Agents	<u>26</u>	<u>75</u>	<u>118</u>	<u>158</u>	
Total	<u>122</u>	<u>187</u>	<u>271</u>	<u>331</u>	911
<u>Training Courses</u>					
Officer/Agent Training Courses	748	1,923	3,000	4,135	9,806
<u>Training Materials/Supplies/Equipment</u>					
Headquarters	150	150	150	150	
Regions	330	855	1,126	1,089	
Provinces	<u>600</u>	<u>1,326</u>	<u>1,819</u>	<u>2,180</u>	
Total	<u>1,080</u>	<u>2,331</u>	<u>3,095</u>	<u>3,419</u>	9,925
<u>Training Staff Salary (Incremental)</u>					
Headquarters	200	200	200	200	
Regions	206	618	824	824	
Provinces	<u>244</u>	<u>915</u>	<u>1,526</u>	<u>2,013</u>	
Total	<u>650</u>	<u>1,733</u>	<u>2,550</u>	<u>3,037</u>	7,970
Total of Above	4,759	10,846	13,007	15,042	43,654
+ 15% Contingency/Inflation	714	1,627	1,951	2,256	6,548
TOTAL LOCAL CURRENCY	<u>P5,473</u>	<u>P12,473</u>	<u>P14,958</u>	<u>P17,298</u>	<u>P50,202</u>
US\$ Equivalent (\$ 000's)	\$274	\$623	\$748	\$865	\$2,510
<u>Foreign Exchange Costs (\$ 000's)</u>					
Technical Assistance	122	128	134	106	490
<u>TOTAL AID LOAN</u>	<u>\$396</u>	<u>\$751</u>	<u>\$882</u>	<u>\$971</u>	<u>\$3,000</u>

Training Coverage By Geographic Entity

	<u>Cumulative Number Covered by Fiscal Year</u>			
	<u>Year I (1977)</u>	<u>Year II (1978)</u>	<u>Year III (1979)</u>	<u>Year IV (1980)</u>
Villages	6,275	14,050	20,920	29,000
Tambons	523	1,495	2,354	3,163
Districts	51	153	250	348
Provinces	4	15	25	33
Regions	1	3	4	4

Table B-4

Numbers of Training Sessions(S) and Personnel Involved(P)*

<u>Personnel</u>	<u>1977</u>		<u>1978</u>		<u>1979</u>		<u>1980</u>	
	<u>(S)</u>	<u>(P)</u>	<u>(S)</u>	<u>(P)</u>	<u>(S)</u>	<u>(P)</u>	<u>(S)</u>	<u>(P)</u>
Regional/Provincial Officers (2 weeks each session)	1	40	3	150	6	250	8	330
District Officers (4 weeks each session)	2	60	5	170	8	280	12	400
New Tambon Agents (5 weeks each session)	17	523	32	972	29	859	27	809
Existing Tambon Agents (2 weeks each session)	—	—	17	523	50	1495	79	2354
Totals	20	623	57	1815	93	2884	126	3893

* Table does not include regular fortnightly district courses to be held for Tambon extension agents at every district headquarters. These will be one, or possibly, two-day sessions primarily dealing with work to be undertaken during following two weeks. These sessions will also include a review of past activities with emphasis on how to deal with problems encountered by the extension agents during their regular work rounds. There will be 25 of these training sessions every year in each district, so the annual number of such sessions over the life of the project is projected as follows:

<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>TOTAL</u>
1,275	3,825	6,250	8,700	20,050

Note on the AID Loan Budget, Table B-2

Per Diem

Headquarters and Regional Training Staffs have four men each at Grade C-3/4 on the road 130 days per year at $\text{P}130/\text{day}$, plus two drivers on the road 200 days per year at $\text{P}90/\text{day}$.

For Regional, Provincial and District Officers per diem is $\text{P}50/\text{day}$ if hostel facilities are available at the Training Centers and $\text{P}130/\text{day}$ if no facilities are available. Number of days of training determines the total amount of per diem.

Per diem for Tambon Agents is calculated at $\text{P}100/\text{day}$.

Travel

Travel for Training Staff is based on the assumption of four in Headquarters and in each Region at 5 trips per year each at a cost of $\text{P}1,000$ per trip plus cost of trips made by official vehicles.

Travel for Regional, Provincial and District Officers is calculated at the rate of $\text{P}100$ for each round trip to the Regional Training Center.

Travel for Tambon Agents is calculated at $\text{P}50$ for each round trip to the Provincial Training Center.

Training Courses

Training course costs are costs of expendable supplies to be used by Officers and Extension Agents during all projected training courses, as outlined in Table B-4. The amounts allocated for each session of each type of courses, are as follows: fortnightly District courses, $\text{P}400$; new Agents courses, $\text{P}6,000$; existing Agents courses, $\text{P}3,000$; District Officers courses, $\text{P}8,000$ and Regional/Provincial Officers courses, $\text{P}10,000$. The miscellaneous category funds are included to cover "Train-the-Trainers" courses, training of Subject Matter Specialists and a contingency amount for classes which are not now planned but which may prove necessary as Project implementation progresses.

Training Provisions (Materials, Supplies and Equipment)

Training materials are for courses for Officers, Agents and Model Farmers and cover the costs of manuals, questionnaires, exercise papers, etc. Costs for Provincial and District Officers were calculated at P1,000 each for first year in the Project and P300 each for subsequent years. Costs for Extension Agents were calculated at P400 per year for new Agents and P100 per year for existing Agents. Costs for Model Farmers were calculated at P40 for first year of each Village operation and P25 for subsequent years. AID-financed costs are lower after the first year because the RTG is expected to pick up the "difference" in subsequent years from its own budget.

Training supplies comprise audio-visual and similar supplies used by teachers (e.g., Subject Matter Specialists) and Training Officers in conducting their classes at the Headquarters, Regional and Provincial levels. Costs were calculated on the basis of P150,000 for Headquarters, P130,000 per Region and P10,000 per Province per year in the Project.

Training equipment refers to locally available, non-expendable hardware and includes relatively low-cost items which will not be financed by the IBRD loan (e.g., easels, blackboards, etc.). Costs were based on best current estimates of yearly outlays required given current supplies available in MOAC.

Training Staff Salaries

The Headquarters training staff consists of:

Training Officer	C-4	@P 36,000	
Asst. Training Officer	C-4	36,000	
Extension SMS	C-4	36,000	
Asst. Extension SMS	C-3	25,000	
Graphics Illustrator	C-3	25,000	
Accountant	C-	18,000	
2 Drivers	C-1&2	<u>24,000</u>	for 2
		P200,000	

Each Regional training staff consists of:

Training Officer	C-4	@	36,000	
Audio-Visual Specialist	C-4		36,000	
Illustrator	C-3		25,000	
Electronics Specialist	C-3		25,000	
VTR Operator	C-3		25,000	
Cameraman	C-3		25,000	
Typist	C-1		10,000	
2 Drivers	C-1&2		<u>24,000</u>	for 2
			Ø206,000	

Each Province has:

Training Officer	C-4	@	36,000	
Audio-Visual Assistant	C-3		<u>25,000</u>	
			Ø 61,000	

Technical Assistance

	<u>Year I</u>	<u>Year II</u>	<u>Year III</u>	<u>Year IV</u>
Advisory Services:				
(Person Months)				
Long-Term Advisor	12	12	12	12
Short-Term Consultants	5	5	5	
Costs (in \$000):				
Long Term	\$85	\$85	\$85	\$87
*Short Term	32	32	32	
**Contingency/ Inflation	<u>5</u>	<u>11</u>	<u>17</u>	<u>19</u>
	\$122	\$128	\$134	\$106

* Includes 3 to 5 months Technical Assistance from DSCS during Year I.

**\$5,000 contingency + approximately 5% inflation per year.

-32-

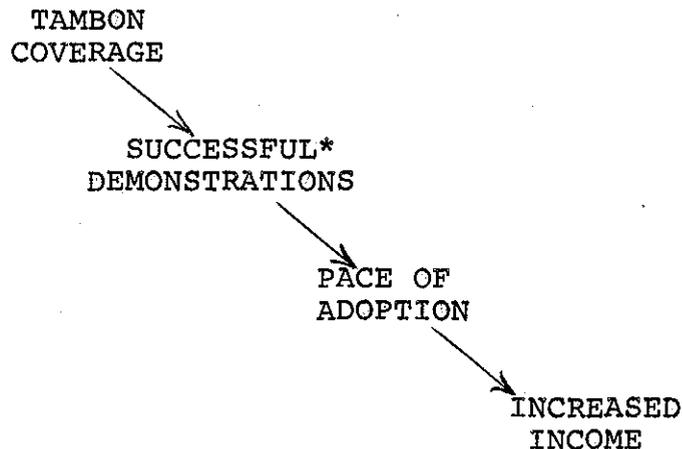
EVALUATION PLAN

Evaluations will be conducted annually with major evaluations occurring in 1978 and 1980. Some preliminary targets which will serve as a very rough basis of evaluation are in Section 1 below. Additionally, the Logical Framework (Annex C of the Project Paper) will serve as a checklist against which Project can be evaluated. Two salient aspects of evaluation in this Project should be noted:

- The essential measure of effectiveness and success is how well extension communicates research findings, how fast the latest usable research results are presented to and adopted by farmers. The target figures and features used for evaluating the Project should therefore be modified each year in light of the new technological opportunities that have been extended in the past year.
- The AID evaluation will be a by-product of the Thai evaluation--evaluation will be an integral part of the Thai management cycle. The basic data for evaluation should come out of DOAE reports and data sampling. The AID evaluator will participate in a joint effort to understand the meaning of that data. The joint evaluation will feed back into DOAE planning guidelines.

1. Logic and Measures of Evaluation

The basic logic of this Project might be summed up in the following diagram:



*See III-D-2 of the Project Paper for definition of "successful" demonstrations.

Thus, evaluation must examine the three key ratios that follow, compare them with expectations, and come to understand why they differed from expectations.

a. Coverage: Successful Demonstrations

Coverage of a Tambon, staffing it with a Tambon Extension Agent, should result in a successful demonstration of 1-3 crops in 4-12 villages, depending on the year of operation and the number of villages in the Tambon. In the first year of operation in the Tambon, successful demonstrations in half the villages is a reasonable expectation.

Successful demonstrations depend on three factors, in addition to the presence of the Tambon Extension Agent:

- (i) The suitability of the extension program for the area. This is the most important factor. Were the crops and practices being demonstrated indeed sound innovations for the farmers of that area, given current costs and prices, risks of market and weather, and competing uses for resources? These aspects must be examined first, in analyzing any shortfall in successful demonstrations, and in analyzing whether the demonstrations were successful. The first step in the analysis is to examine the suitability of the past year program, in light of current conditions.
- (ii) Suitability of operating procedures. If the content of the program was suitable, were field routines and management procedures applied that would assure on-target execution of the demonstrations?
- (iii) Suitability of training. If the content and the operating procedures were sound, did the Officers and Agents grasp them fully?

b. Successful Demonstrations: Rate of Adoption

Following a successful demonstration, did the expected number of farmers undertake to try to adopt the practices? Part III-D-2 of the Project Paper gives the basic assumptions about the rate of adoption. If the pace of adoption falls substantially short of the rate indicated for the zone by these assumptions, then the cause of the shortfall and the validity of the pacing assumptions must be analyzed. In many cases it may reflect back on the validity of the program, the suitability of the demonstrations to the needs and interests of the farmers.

Or it may reflect on the inadequacy of the follow-up support. A successful demonstration must be followed by adequate credit and logistics.

c. Rate of Adoption: Increased Income

Did farmers who undertook to try the practices increase yields and income as expected? Again, the annual program of demonstration (for the previous year) must be re-examined in light of current market and weather conditions. Was there indeed money to be made the past year by following the recommendations? Then the degree to which farmers did indeed follow the recommendations should be examined.

2. Baseline Data

The data on the present system in Tables III-A-3 and III-D-1 of the Project Paper provide a good initial baseline. They are taken from crop surveys whose statistical probability of error is lower than would be a problem for this kind of planning. However, next year a census of agriculture is scheduled, for the first time since 1963. The baseline data can be further refined and validated from the census. It may also be useful to refine and redefine the zones, for purposes of extension planning.

3. Collection of Data

a. Crop Surveys

The annual crop survey will provide a measure of general "control" data. In addition, the DOAE should undertake a small sampling of adopters in each zone, and of unimproved control farmers in the same villages, to derive a statistical estimate of the rate of adoption and the degree

of adoption. Each farmer sampled should be checked for rai planted in the crop, practices applied, and yield obtained. Again, the sample need not be large, probably no more than 100 per zone.

b. Demonstration Reports

Results and problems of every demonstration should be reported, and the reports should be summarized. Two important points should be observed:

(1) Reports should be spot checked.

(2) Reports should not be a threat to officers and agents. Extension personnel are not to feel "measured" by the quantity of successful demonstrations, or honest reporting will meet massive resistance. Rather, it should be understood by all that success of demonstrations is determined by many circumstances, of which personal performance is only one.

4. Analysis and Evaluation Reports

The first step is to summarize the data from surveys and reports in proper form at District, Province, and Zone levels, particularly the latter. Then it should be analyzed for reasons for shortfalls.

It may be useful to have joint analysis, by a combined DOAE-IBRD-USOM team. Having identified the salient shortfalls, they should then go to the field to gain further insight from direct observation.

The evaluation report should be in the May to July period. This allows adequate time for survey and summation of the data on the previous year. This timing would also be appropriate to link with the annual survey of the Project area planned for mid-April to mid-June. The survey will be carried out by an MOAC agency or local Thai University, funded by IBRD, to determine Project impact. This computerized annual report will be available to USOM. It is also in time to make the evaluation report a useful feed-in to the annual guidelines exercises and thus into planning for the coming year.

5. Channels of Communications

Other channels of communication should be noted and taken into account in the evaluation. The comments of farmers on the coming year program should provide insights on whether the demonstrations are addressing the needs of various localities. Since the programs will, in subsequent years, be based on farmer interests, there should not be a great deal of divergence. However, it will be most interesting to see how the farmer concerns and interests change as a result of the program, from one year to the next.

6. AID Evaluation Support

During the four year life of the Project two major joint Thai-U.S. evaluations are planned in 1978 and 1980. Subject to the availability of funds, AID expects to negotiate an agreement granting up to \$100,000 to cover costs, including travel, of external consultants, and to help to defray local currency costs of surveys, etc. carried out by Thai universities that are necessary in preparation of data for the joint evaluations.