

**AGENCY FOR
INTERNATIONAL
DEVELOPMENT**



ANNUAL BUDGET SUBMISSION

FY 1977

THAILAND

BEST AVAILABLE

**DEPARTMENT
OF
STATE**

JULY 1975



UNCLASSIFIED

ANNUAL BUDGET SUBMISSION

FY 1977

THAILAND

June 20, 1975

Office of Program
USOM, Thailand

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ANNUAL BUDGET SUBMISSION FOR FY 1977

USOM/THAILAND

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RECENT EVENTS IN THAILAND

Two major events have occurred since December 1974 and impact on the DAP submission for Thailand: the January 1975 parliamentary elections, resulting in formation of the government led by Prime Minister Kukrit Pramoj; and the cataclysmic military and political changes in Vietnam, the Khmer Republic and Laos. Early returns indicate the following:

- Policy articulations, early actions of the present Thai Government, and priorities and strategies being discussed for the Fourth Five-Year Plan (begins October 1976) are consistent with the development strategies presented in the December 1974 DAP for Thailand.

- Although there are some reports of an initial unfavorable impact on capital movements and investments, analysis of any long-term influences on these factors would be superficial and premature.

- Similarly, an attempt to identify the impact of recent events on U.S. foreign policy, vis-a-vis Thailand and U.S. interests in Thai development, would also be premature. Until the dust settles, and any changes in U.S. interests are clarified, we must conclude that the development strategy outlined in the December 1974 DAP remains valid.

- The DAP forecasts of satisfactory growth in the Thai economy, unutilized potential, a capacity to meet external obligations and access to external assistance commensurate with current developmental requirements have not changed at this juncture; hence, the recommended phased reduction in U.S. bilateral concessionary assistance remains valid.

The stated major policy objectives of the Kukrit government are:

Economic - to combat poverty, inflation and unemployment.

Social - to bridge the gap between the rich and the poor, to provide an equitable education system, to encourage savings vs. extravagance among the Thai, and to maintain internal peace and order.

Administrative - to decentralize some portions of the central bureaucracy to the provincial level, and decentralize development planning and implementation to the canton (tambon) level.

Military - to maintain the independence and sovereignty of the country on a self-supporting basis.

Foreign Affairs - to promote peaceful relations with all countries having good intentions toward Thailand.

In the development sphere, the government is focusing on income distribution, expanding social services, and raising agricultural productivity. It plans to address the income disparity problem principally through welfare measures such as standardized medical care, standardized compulsory education for all children through grade 4, expansion of the secondary school system, free busing for the urban poor, guaranteed prices to farmers for certain agricultural commodities (rice, maize, sugar), subsidized agricultural inputs, and a more progressive tax structure.

On April 9, 1975, the Administration Improvement Center of the Office of the Prime Minister was established to decentralize the administration of local development projects. Canton (tambon) councils will have the authority and funds (provided by the RTG) to implement projects in health, education, road construction and maintenance, electricity, and water resources. \$2.5 billion was allocated to the canton councils for this program in FY 75.

Preliminary indications are that the RTG budget for fiscal year 1976 will reach \$62 billion, exceeding the 1975 level by \$14 billion. Despite the budgetary implications of Thailand's military goal, education will receive the largest portion of the FY 76 budget, with defense ranking second. Portions of the education budget will be used for sub-district educational development as well as expanded social services for the urban and rural poor. Details are not yet available on the agricultural budget.

The priority areas which the RTG is addressing are consistent with the areas contained in the DAP analysis. In project design working sessions with DTEC and NESDB, their representatives have consistently used the DAP analysis as the basis for project identification for USOM support and for the development of project inputs, outputs and expected outcomes. In addition, the increased emphasis given to the quality of life for Thailand's poorest majority is consistent with the DAP strategy statement

to "support Thai efforts in designing policies and in mounting programs and projects which reach out and down in agriculture and health to the rural poor." This strategy statement, and action by both the RTG and USOM to work toward the fulfillment of this goal, is indicative of the change in assistance orientation from the previous Supporting Assistance rationale. Additionally, the DAP strategy statement and USOM's current and proposed projects are in accord with the intent and spirit of the Congressional Mandate. Thailand's increased emphasis to improve the quality of life for the poorest majority provides an atmosphere in which A.I.D. assistance can be used effectively to complement RTG development goals and programs commensurate with the Congressional Mandate.

The analysis underpinning the December 1974 DAP submission indicated that Thailand has reached the stage where it has the capacity to grow at a satisfactory rate and to meet its external obligations without bilateral U.S. concessional assistance. Recent events and preliminary RTG analyses for the Fourth Five-Year Plan (1977-1981) have not altered this view. However, we shall be looking for signals from the IBRD economic mission which is currently reviewing Thailand's balance of payments and debt/service situation for the Fourth Five-Year Plan.

Thailand will require U.S. support on a concessionary basis for the next few years to maintain the momentum of its successful family planning effort and to reach the proposed Fourth Five-Year Plan population growth target of 2.1%.

Thailand will also require access to U.S. managerial and technical skills. As part of our transitional strategy toward non-concessional assistance, the Mission is developing with the RTG a \$4 million activity (for FY 76-77) to facilitate the transfer of management and technical skills, is working on closer links between the RTG and 211(d) grant universities and centrally funded research, and is continuing grant assistance to improve the Ministry of Agriculture's analytical capability to understand the origin of and to formulate policies/programs addressing the problems of rural Thailand. These efforts will form the basis for Section 607 cost reimbursable technical assistance to Thailand in the period 1978-81.

Finally, as noted above, the newly elected democratic Kukrit government has reaffirmed that correcting the rural-urban income disparity problem is its major economic and social goal. In keeping with this goal, and following consultations with the Mission on the DAP, the government asked for U.S. concessional loan assistance in both FY 76 and FY 77 for selected projects that directly raise the incomes and expand the welfare of poorer farmers. In these consultations, the RTG also affirmed

that such assistance would be an indication of U.S. support for the recently elected democratic government and for its new development plan. Our proposed FY 76 and FY 77 programs, within the DAP framework, are responsive to this request.

Centrally-Funded Research

During FY 76-77 the Mission intends to draw more heavily upon centrally-funded resources than in the past to carry out the transitional assistance strategy to Thailand. (See Development Assistance Program Submission for Thailand, 1976-81, December 20, 1974.) We intend to try to establish direct linkages between 211(d) grant universities and Thai institutions, minimizing Mission involvement, and to use centrally-funded grant programs for the transfer of U.S. technology in areas that are consistent with our DAP strategy and RTG developmental priorities. Additional elements of this strategy are a \$4 million grant to the RTG for the transfer of U. S. managerial and technical skills, and greater use of PVO grants. Our goal is for Thailand to be more fully conversant with programs and talent available in the U.S., and specifically in AID, which could make an effective contribution to solving Thai-identified priority problems. These resources would be available either through participation in centrally-funded programs or by using Section 607 cash reimbursable technical assistance for the period beyond 1978. Some Section 611 grants to develop the RTG capacity to locate and contract U.S. technicians on a cash reimbursable basis will also be employed.

1. Project Related

a. Population. The PHA Bureau currently maintains contracts with several universities, research institutions, consulting groups, etc., which could be utilized to provide assistance in the following areas.

(1) A project in the use of incentives for increasing FP acceptors (potential contractors: Harvard, Rand Corp., UNC, AIR).

(2) Macro measurement of FP program impact (potential contractors: National Center for Health Statistics, Bureau of the Census, UNC).

(3) Pilot study on commercial sector utilization in non-clinical contraceptive distribution (potential contractors: Westinghouse Population Center, Population Services, Inc.).

(4) Analysis and consolidation of global research fundings on "demand" aspect of population programs (potential contractors: several universities, Population Reference Bureau, Population Council).

b. Nutrition. The Mission will continue to use AID/W-funded nutrition expertise, including TA Bureau contracts. During the year it is anticipated that several PVO nutrition research and testing projects will be implemented and centrally-funded resources will be a great assistance in helping design and implement these projects. Additionally, nutrition planning for the Fourth Five-Year Plan will be requested from TAB. These inputs will contribute to better nutrition in Thailand which is spelled out as a goal in the DAPS.

c. Health. The Mission will continue to endorse the centrally-funded DEIDS project in Lampang. The RTG intends to draw upon the DEIDS expertise wherever possible in areas where their activities have proven successful in order to replicate nationwide the work being done. The DEIDS project is aimed at increasing services reaching the rural poor and thus is fully supportive of the DAPS.

d. Agricultural. The Mission will continue to encourage Thai efforts to build linkages between ICRISAT and the Northeast Agricultural Center (NEAC). Introduction of new technologies and support of the NEAC are important if the full agricultural potential of Northeast Thailand is to be realized.

The Mission will continue to provide communication linkages between the RTG and AID/W as necessary to get the IRRI small-scale agricultural equipment project under way in Thailand. The project has great potential for assisting the Thai farmer in improving his productivity at minimum cost, thus improving his income.

USOM will continue to use Kansas State University expertise for short-term marketing and agri-business advice. These experts have proven very useful to the Thai Ministry of Agriculture and Cooperatives (MOAC) and undoubtedly several months of assistance will be requested in FY 76 by both the MOAC and IFC/T and will contribute to the narrowing of income disparities in Thailand.

USOM will continue facilitating centrally-funded and other efforts. In broadening the impact of the ERTS project. Currently small projects are under way under ERIM auspices and through the Mekong Committee. This project supports PD-51.

We will continue to utilize the Mississippi State University contract for short-term assistance regarding specific problems that may arise with the seed development project that will be initiated in FY 76. It is also our expectation that MSU will be involved in the long-term technical assistance to be loan-funded under the project. In addition, we would hope that INTSOY could provide assistance in inoculant research and production in this region and specifically to the inoculant element of the Seed Development Project. Both of these efforts will impact directly on inputs to agriculture which are critically important to increases in food production and farmer incomes.

A new initiative is starting in Thailand in the area of land reform. We will inquire in the next few months what resources the U.S. could mobilize to assist Thailand in this area. The contract with the University of Wisconsin Land Tenure Center is a source of expertise which we plan to draw on when the Thai identify a specific role for American advisory assistance. Any steps to increase equitable distribution of land will help reduce income

disparities and would be supportive of the Mission goal of targeting the rural poor.

We will continue to utilize Auburn University fishery expertise. This institution has a long history of assistance in Thailand and occasional visits have helped to keep the momentum of fishery development in Thailand going.

Finally, the Mission will continue to support Thai and AID/W efforts to involve the weed research contract with Oregon State University in assistance to the Thai weed research program. Weed infestations have been determined to be a cause of lower income to Thailand's poor farmers.

e. Other Research. We hope to further develop the relation between Denver Research Institute and Applied Scientific Research Corporation of Thailand so that the effectiveness of ASRCT can be further improved. This relationship is presently embryonic and we wish to see it grow. As one of the few areas of Mission activity supportive of PD-51, a high priority has been assigned this activity.

USOM is presently discussing a seminar on sector analysis in FY 76. We would hope to utilize 211(d) funded institutions as a source of expertise. This centrally-funded seminar would include representatives from other countries presently engaged in projects similar to the Thai Agricultural Sector Analysis Project and countries of Southeast Asia interested in initiating such research.

In the area of non-formal education the Mission will probably utilize Michigan State University 211(d) research facilities to assist the Thai in this important area. A team is due in August to develop a research scheme investigating the role of women in non-formal adult education. They will work with the Adult Education Division of the Ministry of Education. This project will respond to both Section 113 of the FAA and the DAPS. A possibility of utilizing work being undertaken by Cornell University on the role of women in development also exists and will be further explored with the RTG.

The Thai are most interested in bettering the methodology employed in urban/rural planning in order to speed decentralization. A centrally-funded reconnaissance study was completed in Chonburi municipality to assist them in this effort. Many of the poorest citizens of Thailand are non-Bangkok urban dwellers. It is anticipated that a centrally-funded team will return in FY 76 to assist Chonburi in creating a viable land-use program which will serve as an example for other Thai municipalities; thus, the project can be viewed as a research/demonstration scheme aimed at the non-Bangkok urban centers in Thailand.

The Mission has been asked on several occasions to assist with local government finance and administration. A SEADAG seminar is presently being

discussed for the end of CY 75. This seminar would bring together experts in the area and would further permit the collection and commissioning of research on the local government finance and administration problem in Thailand. This centrally-funded effort will respond to the promotion of democratic institutions indirectly by providing information and guidance for decentralization and rationalization of the RTG resources.

An environmental expert was provided to the RTG under the NEPP project in FY 75. The Mission and the RTG are interested in short-term assistance on specific environmental problems during FY 76. Either AID/W resources or indefinite quantity contracts will be drawn on from time to time to address specific development-related environmental problems.

The DAP sets as a strategy the reduction of income disparities. Although a body of knowledge is developing on income distribution the RTG still thinks it inadequate for major policy determinations. During FY 76 the Mission intends to develop better communications between AID centrally-funded university grant contracts (Cornell, Rice) and RTG planners. We will also share with the RTG work being done within AID, or financed by AID, on reaching the poorer majority.

USOM THAILAND
SUMMARY TABLE FOR FY 1976
(\\$000)

	F & N	PP & H	E & HR	SDP	SCO	DEVELOPMENT ASSISTANCE SUB-TOTAL	SUPPORTING ASSISTANCE	TOTAL
<u>FY 1976</u>								
<u>ONGOING GRANTS</u>								
Special Training for National Development (493-11-995-173)	665	125	100	-	-	890	-	890
Agricultural Development (493-11-190-180)	478	-	-	-	-	478	-	478
Health & Population Planning (493-11-580-266)	-	<u>4,229</u>	-	-	-	<u>4,229</u>	-	<u>4,229</u>
Sub-Total	1,143	4,354	100	-	-	5,597	-	5,597
<u>NEW GRANTS</u>								
Transfers of Technology & Mgmt. Skills (493-11-755-274)	457	175	300	-	-	932	-	932
Program Development & Support (493-11-990-275)	<u>500</u>	-	-	-	-	<u>500</u>	-	<u>500</u>
Sub-Total	957	175	300	-	-	1,432	-	1,432
<u>LOANS</u>								
Seed Development	2,400	-	-	-	-	2,400	-	2,400
Sericulture Production - Settlement	2,600	-	-	-	-	2,600	-	2,600
Lam Nam Oon On-Farm Development ("Shelf Project" - non add)	<u>(3,500)</u>	<u>(-)</u>	<u>(-)</u>	<u>(-)</u>	<u>(-)</u>	<u>(3,500)</u>	<u>(-)</u>	<u>(3,500)</u>
Sub-Total	5,000	-	-	-	-	5,000	-	5,000
TOTAL	<u>7,100</u>	<u>4,529</u>	<u>400</u>	<u>-</u>	<u>-</u>	<u>12,029</u>	<u>-</u>	<u>12,029</u>

USOM THAILAND
SUMMARY TABLE FOR FY 1976 INTERIM QUARTER
(\$000)

	F & N	PP & H	E & HR	SDP	SCO	DEVELOPMENT ASSISTANCE SUB-TOTAL	SUPPORTING ASSISTANCE	TOTAL
<u>FY 1976 INTERIM QUARTER</u>								
<u>ONGOING GRANTS</u>								
Special Training for National Development (493-11-995-173)	25	25	50	-	-	100	-	100
Agricultural Development (493-11-190-180)	75	-	-	-	-	75	-	75
Health & Population Planning (493-11-580-266)	-	1,058	-	-	-	1,058	-	1,058
Transfers of Technology & Mgmt. Skills (493-11-755-274)	50	50	50	-	-	150	-	150
Program Development & Support (493-11-990-275)	<u>50</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>50</u>	<u>-</u>	<u>50</u>
Sub-Total	200	1,133	100	-	-	1,433	-	1,433
<u>NEW GRANTS</u>								
None								
<u>LOANS</u>								
Lam Nam Oon On-Farm Development ("Shelf Project" - non add)	<u>(3,500)</u>	<u>(-)</u>	<u>(-)</u>	<u>(-)</u>	<u>(-)</u>	<u>(3,500)</u>	<u>(-)</u>	<u>(3,500)</u>
Sub-Total	<u>(3,500)</u>	<u>(-)</u>	<u>(-)</u>	<u>(-)</u>	<u>(-)</u>	<u>(3,500)</u>	<u>(-)</u>	<u>(3,500)</u>

USOM THAILAND
SUMMARY TABLE FOR FY 1977
(\$000)

	F & N	PP & H	E & HR	SDP	SCO	DEVELOPMENT ASSISTANCE SUB-TOTAL	SUPPORTING ASSISTANCE	TOTAL
<u>FY 1977</u>								
<u>ONGOING GRANTS</u>								
Special Training for National Development (493-11-995-173)	50	-	150	-	-	200	-	200
Agricultural Development (493-11-190-180)	325	-	-	-	-	325	-	325
Health & Population Planning (493-11-580-266)	-	2,000	-	-	-	2,000	-	2,000
Transfers of Technology & Mgmt. Skills (493-11-755-274)	1,430	554	934	-	-	2,918	-	2,918
Program Development & Support (493-11-990-275)	<u>150</u>	-	-	-	-	<u>150</u>	-	<u>150</u>
Sub-Total	1,955	2,554	1,084	-	-	5,593	-	5,593
<u>NEW GRANTS</u>								
None								
<u>LOANS</u>								
Rural Electrification	10,000	-	-	-	-	10,000	-	10,000
NE Agricultural Extension Outreach	<u>3,000</u>	-	-	-	-	<u>3,000</u>	-	<u>3,000</u>
Sub-Total	13,000	-	-	-	-	13,000	-	13,000

AGENCY FOR INTERNATIONAL DEVELOPMENT PROJECT IDENTIFICATION DOCUMENT FACESHEET TO BE COMPLETED BY ORIGINATING OFFICE				1. TRANSACTION CODE (TEXT APPROPRIATE BOX) <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> CHANGE <input type="checkbox"/> ADD <input type="checkbox"/> DELETE		PID DOCUMENT CODE 1			
2. COUNTRY/REGIONAL ENTITY/GRAANTEE Thailand				3. DOCUMENT REVISION NUMBER					
4. PROJECT NUMBER 493-0277		5. BUREAU A. SYMBOL EA B. CODE 02		6. PROPOSED NEXT DOCUMENT A. <input checked="" type="checkbox"/> PRP <input type="checkbox"/> PP B. DATE MO. 1 1 7 5 YR.					
7A. PROJECT TITLE - SHORT (STAY WITHIN BRACKETS) <input type="checkbox"/> Rural Electrification <input type="checkbox"/>				8. ESTIMATED FY OF AUTHORIZATION/OBLIGATION A. INITIAL FY <u>77</u> B. FINAL FY <u>77</u>					
7B. PROJECT TITLE - LONG (STAY WITHIN BRACKETS) <input type="checkbox"/> Rural Electrification Northeastern Outreach Program <input type="checkbox"/>				9. ESTIMATED COST (LIFE OF PROJECT) (\$000 OR EQUIVALENT, \$1 = 20) \$75,000,000					
				PROGRAM FINANCING			AMOUNT		
				A. AID APPROPRIATED		10,000,000			
				B. OTHER U.S.		-			
				C. HOST GOVERNMENT		37,500,000			
				D. OTHER DONOR(S)		27,500,000			
				TOTAL		75,000,000			
10. ESTIMATED COSTS/AID APPROPRIATED FUNDS (\$000)						11. OTHER U.S. (\$000)			
A. APPROPRIATION (ALPHA CODE)	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE	FIRST YEAR		ALL YEARS		A. PROGRAM TYPE	B. FIRST YEAR	C. ALL YEARS
			D. GRANT	E. LOAN	F. GRANT	G. LOAN			
FN				10,000		10,000			
TOTAL				10,000		10,000	TOTAL		
12. PROJECT GOAL (STAY WITHIN BRACKETS) <input type="checkbox"/> To enhance the welfare of rural Thai people and to increase their incomes and employment opportunities by making electric services available at reasonable rates for both household use and increased production. <input type="checkbox"/>									
13. PROJECT PURPOSE(S) (STAY WITHIN BRACKETS) <input type="checkbox"/> The purpose of this project is to electrify 3,600 villages in the Northeast. <input type="checkbox"/>									
14. PLANNING RESOURCE REQUIREMENTS (STAFF/FUNDS)									
Management analyst		1 mm		Power load forecaster		1 mm			
Training expert		1 mm							
Economist		1 mm							
15. ORIGINATING OFFICE CLEARANCE						16. DATE RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION			
SIGNATURE J. E. Williams									
TITLE Acting Director USOM - Thailand			DATE SIGNED MO. 0 6 1 8 7 5 YR.						
						MO. DAY YR.			

PID Rural Electrification

I. Summary of the Problems to be Addressed and the Proposed Response to the Problems

A. Background

The Fourth Five-Year Plan (1977-1981) will identify the expansion of social services to poorer people and the reduction in income disparities between urban-rural dwellers as the country's highest developmental priorities. The DAP, submitted in December 1974, and revalidated by the Mission in its FY 77 Annual Budget Submission, states as the Mission's highest concessional assistance priority support for Thai outreach programs that improve the welfare and incomes of Thailand's poorer rural majority. The newly elected democratic government of Prime Minister Kukrit Pramoj, reaffirmed and, in fact, placed greater emphasis on an accelerated rural electrification program as one of the government's principal programs to address these problems and to strengthen the social and political fabric of Thai villages. The Provincial Electricity Authority (PEA) is the RTG agency responsible for rural electrification.

The goal of this project is to enhance the welfare of rural Thai people and to increase their incomes and employment opportunities by making electric services available at reasonable rates for both household use and increased production.

B. Solution to the Problem

The Problem

1. The Northeast income level (\$76 per capita) is far lower than that of the rest of Thailand, and approximately 1/3 of the \$225 per capita income deemed to be the minimum acceptable by development analysts to afford a decent life. If the 16 provinces of Thailand were a nation, it would be high on the list of MSA's. The RTG is faced with a situation where basic health and educational services, storage of food, simple agricultural-related industries (vehicle and farm equipment repair, rice milling) and controlled irrigation cannot progress without a parallel development in rural electrification. In addition, rural people want electricity. The demand for PEA services far exceeds its financial capability to supply them.

In response to this requirement the Kukrit government, in its new canton (tambon) development program, included rural electrification as an eligible claimant against the \$500,000 distributed to each canton council.

2. There are 45,000 villages in 68 provinces within the PEA service area. Of these, 5,000 villages have been electrified to date. The remaining 40,000 villages will be electrified in the next 25 years. The first 5-year rural electrification program identifies 3,600 villages in 16 provinces in the Northeast as the country's first priority. In 1972 the USG financed a reconnaissance study by Middle West Service Co. which assisted in the development of a plan for providing electricity to Northeast Thailand. This study found electrification to be feasible and PEA has contracted the services of R.W. Beck, under the USOM-funded Project Development Loan, to develop a full feasibility study for electrification of these 3,600 northeastern villages.
3. The purpose of this project is to electrify 3,600 villages in the Northeast.

II. Description of the Project

A. Villages in the Project Areas

The first 5-year program defines 3,600 villages in 16 provinces of Northeast Thailand, approximately 150-330 villages per province (with an average of 225 villages). The project output will be dependable electrical service at a reasonable cost to these 3,600 villages, involving 150,000 families.

B. Distribution System

Of the total 3,600 project villages, 95% shall be electrified by connection to the grid system which buys power from the Electrical Generating Authority of Thailand (EGAT) and 5% by connection to distribution systems of PEA's isolated diesel-generating plants.

The physical magnitude of the distribution system is very extensive. There are 5,000 cct. km. of main primary lines. 5,400 cct. km. of primary line taps and 9,000 cct. of secondary lines provide the linkage between the 3,600 villages and the primary lines. Each village will have ten 36,000 KVA distribution transformers unless a load study indicates higher KVA is required.

<u>System Component</u>	<u>Magnitude</u>
Main Primary Lines	5,076 cct. km.
Primary Line Taps	5,400 cct. km.
Secondary Lines	9,000 cct. km.
Distribution Transformers	36,000 KVA
KWH Meters	150,372 ea.
Feeder Reclosers	48 ea.

PEA plans to experiment with various administrative systems for village participation in its program. Our system now under active review and experimentation is for the village to pay a deposit for the meter and the village headman be made responsible for collection and payment of the bills.

C. AID Participation in the Project

Total Project Costs are \$75 million, approximately 50% local costs and 50% FX costs.

PEA proposes Region NE. 1 for AID financing. (See Annex I). Region NE.1 is composed of the six northern-most provinces in the Northeast: Udorn Thani 265 villages; Nongkai 150 villages; Loei 150 villages; Khon Kaen 290 villages; Sakon Nakhon 165 villages; Nakhon Phanom 175 villages: Total 1,200 villages.

Total project cost for these villages is estimated at \$20 million - \$10 million local costs and \$10 million FX costs which AID would finance.

The remainder of the 10 provinces, which are under PEA's Region NE.s and Region NE. 3 are expected to be financed 50/50 by the World Bank and the RTG at a cost of approximately \$55 million.

PEA's Office of Rural Electrification will set up three 91-man construction rigs to implement 50% of the project construction. Another 50% is planned to go to local construction contractors.

PEA will require four U.S. consultants to assist them in the implementation of the project. These will be financed under the loan agreement. Two consultants will advise the PEA on engineering and another two on construction.

Estimated disbursement period is five years. U.S. financial involvement is expected to begin in FY 77. (although the RTG will be ready to begin by November, 1975), with disbursements concentrated in FY 77-80.

The feasibility study now underway for these 3,600 villages is being done on a province by province basis. Should funds be limited in FY77, A.I.D. could participate in \$5 million of the total project costs rather than \$10 million as proposed in this PID.

III. Major Assumptions

- A. The feasibility study of the 3,600 villages now under way will show the project to be economically viable as a public utility operation in the poorest area of rural Thailand, under the existing rate structure or the rate structure will be changed. The rate of return is not expected to be greater than the average cost of financing capital outlays.
- B. The RTG will continue to place a high priority on rural electrification in the Northeast, i.e., will go through with plans outlined above.

IV. Host Country and Other Donor Activities

The PEA has been active in rural electrification for over 10 years. To date its program has concentrated on electrifying towns and building up the main extension lines. In 1973 the RTG adopted a plan for total electrification of the country. A 25-year plan has been formulated and approved. In support of this plan the Germans lent PEA DM 5 million in 1973 for Chiang Rai electrification, DM 15 million in 1974 for extension lines in the eastern and southern regions and DM 20 million in 1974 for distribution lines to replace diesel generators. Japan loaned \$13 million in 1974 for extension of some main lines.

The PEA is now focusing on an outreach program. Three hundred and forty-six villages in the Northeast are to be electrified under the IBRD Northeast Rural Infrastructure Project which will be finalized within the next two months. Rural electrification is also part of the Kukrit government's \$2.5 million canton (tambon) council program in FY75 as noted above. The Kuwait government has expressed interest in financing rural electrification for four provinces in the South.

The most important donor involved in the project proposed under this PID is the IBRD. An IBRD mission is expected in August or September to write a project paper for rural electrification of 10 provinces in the Northeast using as its basis the PEA plan and the feasibility study being undertaken by R.W. Beck.

V. Alternatives

The alternate to rural electrification as proposed in this project is to expand diesel generation as the means of generating power. This has proven to be a very costly and inefficient way to electrify villages. Another alternative is not to electrify. However, this appears to be politically and socially unacceptable in the present Thai context.

VI. Beneficiaries

The major beneficiaries of this project will be the families living in the 3,600 villages to be connected in the PEA system. Initially 150,000 families are expected to become new PEA customers. This is less than half the families in the villages involved. A demonstration or spread effect will provide the incentive for additional families to participate as consumers of electrical power. It is expected that within 15 years nearly all families in the 3,600 villages will be paying consumers of electricity. This will bring the availability of electricity to the poorest farmers in the areas involved, although some poorer villages and customers are included in the initial 3600 village system. These villages may receive free wiring or other subsidized services.

VII. Spread Effect

In addition to the spread of electrical consumers throughout the affected villages, improved production, incomes, education and health; a reduction in population growth rate; and a greater identification by Northeast villages with the country's development will result from this project.

Financial Requirements and Plan

The entire project budget is estimated to be \$75 million, of which \$37.5 million will be foreign exchange and \$37.5 million will be local costs. Of the foreign exchange element of the project, the

IBRD is expected to provide \$27.5 million and the USG \$10 million. All local costs will be met by the RTG. Loan financing at concessional rates from the USG is necessary for the project to provide electrical services to most villages (and most families in those villages) in the areas selected. Subsidization by the RTG may be necessary under the existing rate structure. The RTG will be encouraged to make the electricity available to the widest possible number of Thai farmers in the six Northeast provinces proposed for USAID assistance; and to adjust the rate structure as appropriate to provide a break-even operation for providing technical and other information to users and potential users of PEA funds.

The financial rate of return for the rural electrification portion of the IBRD Northeast Rural Infrastructure Project was calculated at 4.5% and the economic rate of return 12%. The IBRD rate of interest on this project is likely to be 8.5%. The project is of five years' duration with actual disbursements occurring between 1977 and 1980. Earlier implementation in FY 76 is desired by the RTG and will be the subject of negotiation and the availability of funds.

Development of the Projects

1. Studies and Analysis

a. Already Done or Under Way

- (1) Reconnaissance study to determine advisability of electrifying remote villages in the Northeast (1972- Middle West Associates Co.).
- (2) Feasibility study of electrification for 3,600 specific villages in the Northeast (presently under way by R.W. Beck).
- (3) Rate structure study for PEA (under way by R.W. Beck).
- (4) Demand for electricity in the Northeast for agricultural related uses (under way by IBRD).

b. To Be Done

- (1) An analysis which identifies options for the local management of the connecting system to the villages.
- (2) Analysis of management capability of PEA to effectively implement the expansion program.

2. PRP and PP Schedule

- a. Feasibility study completed - August 1975
- b. PRP prepared and submitted - November 1975
- c. PP prepared and submitted - March 1976

3. Resource Requirements for Project Development

Consultants or advisory services to examine:

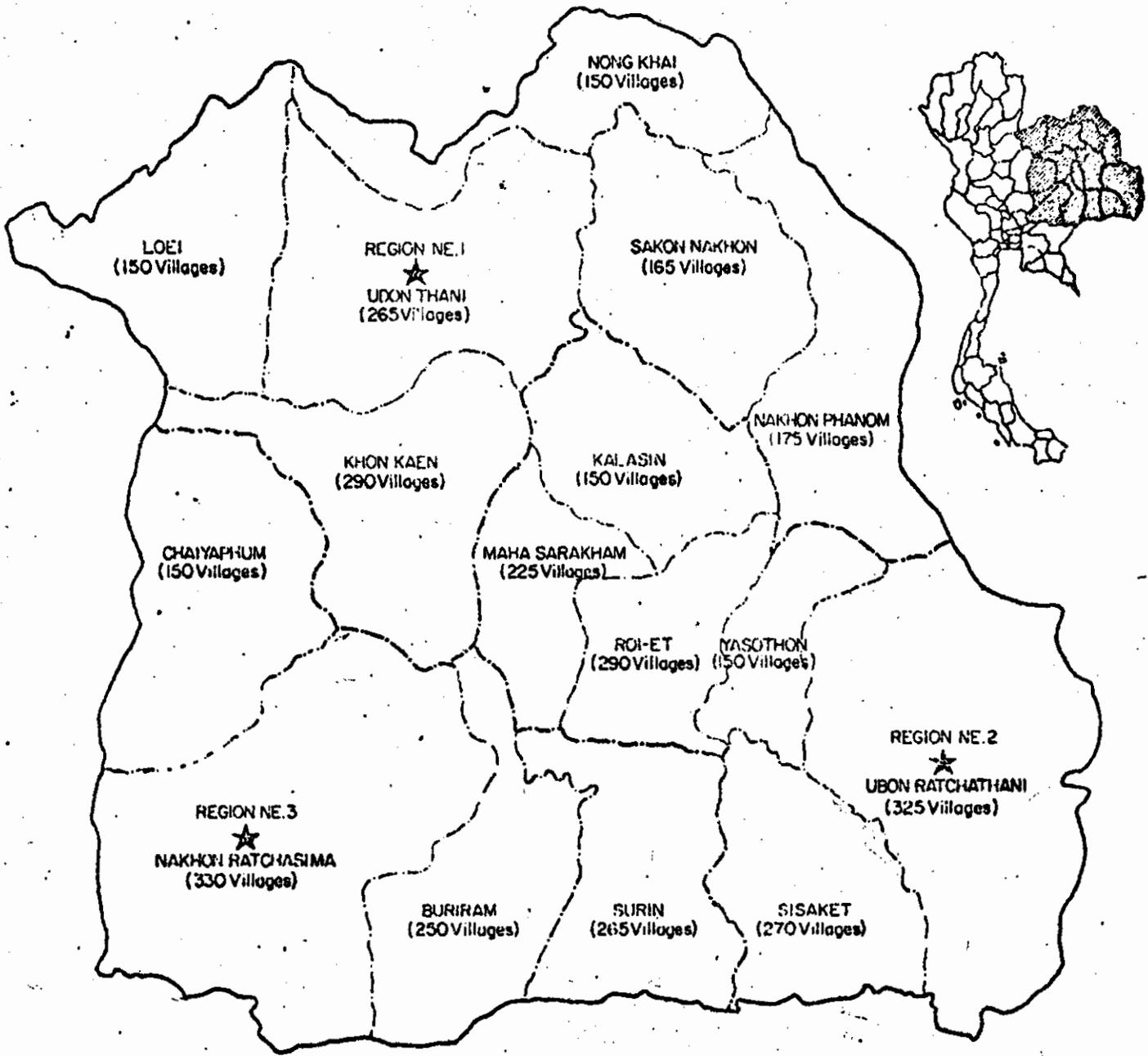
- a. Administrative arrangements for connecting villages into the system and management capability of PEA in the context of a greatly expanded system. 1 mm at PRP stage.
- b. Review training requirements for expanded PEA. 1 mm at PP stage.
- c. Economist to assist in writing PP. 1 mm at PP stage.
- d. Education Program for electrical load building. 1 mm at PP stage.

4. Issues of a Policy of Programmatic Nature

- a. Design of system - multiple grounding system versus earth return system.
- b. Compensatory rate or services provided to poorer villages or customers.

4.008

PROJECT AREA FOR ACCELERATED RURAL ELECTRIFICATION PHASE I.



PID--NORTHEAST AGRICULTURAL EXTENSION OUTREACH

I. Summary of the Problem and Proposed Response

A. The Problem

The DAP, as revalidated in June 1975, states that Thailand suffers from an inadequate system for delivery of technical know-how to farmers, manifested primarily by the lack of sufficient extension personnel as well as inadequate linkages between research and extension services of the RTG. In addition to the gap between crop improving research technology and actual practices, farmers are similarly unaware of opportunities existent for more credit, better seed, potential markets, pesticides and several other agricultural inputs as a result of under-manned extension services. The RTG recognizes that the information gap is a problem, and has been testing a "farmer foreman" concept in Central Thailand. This concept is an effort to reach down to the Thai farmer by expanding extension manpower through the use of respected local farmers to advise his peers. The concept has proven useful in the irrigated areas of Thailand and the RTG would like to expand its use into rainfed areas of the Northeast. They would also like to increase the knowledge and effectiveness of their regular extension officers. The original experiment was carried out in irrigated areas of the central plains, a generally higher income area of Thailand. The RTG now wishes to apply the lessons learned with farmer foreman in a larger program concentrated in Northeastern Thailand where incomes are the lowest in the Kingdom. In addition to farmer foreman they plan to establish "Tambon Volunteer's" who will work at a level between the farmer foreman and the Amphoe Extension Agent. These tambons volunteers will, in the future, be replaced by or up graded to tambon extension agents. The project will be developed around the Tambon volunteer and the farmer foreman, with expected increases in the regular extension agent staff. The goal of this project will be the provision of services and information to the poor farmer which will allow him to raise his income by maximizing use of existing research and technology.

B. Proposed Solution to the Problem

The RTG propose to solve the problem through the use of village level volunteer extension workers called 'Tambon Volunteers' and 'Farmer Foremen'. These workers would be recruited from

among the respected and inovative farmers in the community in which they will serve. After a short training period, they would form the link between the Amphoe MOAC extension worker and the small farmers in the village.

The project would increase the knowledge of both Department of Agricultural Extension (DOAE) field workers and these selected local volunteers in areas of modern agriculture and resource availability so that the NE farmer will be cognizant of opportunities available to him. Through utilization of these opportunities the NE farmer will be able to increase his production of agricultural commodities, improve nutrition and increase family income. All of these elements are goals reflected in the Thai Third Development Plan, will continue to be priorities in the Fourth Plan and are acknowledged in the DAP.

The RTG proposes to address the problem by:

1. Selecting farmer volunteers from each of the 1630 Tambons in Northeast Thailand.
2. Developing training programs for the Extension Agents Tambon Volunteers and Farmer Foreman to make them aware of new and improved agricultural technology and develop their ability to effectively pass the information to other farmers. Training will be specific for the major agricultural activities in the volunteers' Tambon and be carried out on farms, and at research stations, colleges and universities in the Northeast. We expect a minimum of 45 days training during each year at appropriate intervals during the year.
3. Upgrading capability of the RTG extension personnel in the Northeast at the regional, provincial, and amphoe level with emphasis on organization and management through in-country training and technical assistance.
4. Disseminating additional extension publications, agricultural literature and agricultural information to the farmer with emphasis on visual aids.
5. Increasing numbers of farmer foreman either under this project or other donor activities in the NE.
6. Increasing on-farm field trials and demonstrations under joint sponsorship of the DOAE and the research facilities in the Region.

Specific project outputs will be developed during the design stages however some of the expected project outputs are:

1. Trained Farmer Foremen who:
 - a. operate demonstration farms;
 - b. promote and encourage new agricultural practices through visits and advice to neighboring farmers;
 - c. report farmers' needs back to the MOAC;
2. More efficient administration of DOAE/MOAC as measured by:
 - a. greater cost-effective supervision of field staff;
 - b. a more rapid fielding of new technology to the small farmers;
 - c. increased accuracy in the MOAC's perceived needs of the small farmer.
3. Information packages which provide:
 - a. technical and promotional literature to small farmers;
 - b. technical and promotional literature to farmer foremen;
 - c. training material to farmer foreman trainers.

The RTG presently estimates a need for three man years of technical assistance to assist them with the management and organization problems associated with training and supervising this large expansion of extension services. A great deal of attention would be given to the organization and training aspects of the program. In addition 12 man months of short term assistance over a five year period is required for specific project activities.

The project would be phased over a five year period, with the first three years devoted to selection of volunteers, creation of manuals and communications media as well as some training. The training effectiveness will be evaluated at the end of the second year, changes will be made to reflect realities and full scale training will be undertaken in the last 3 years of the project. Some observation tours to neighboring countries with similar outreach programs are expected to be programmed. Funds will be disbursed between FY 77 and FY 81.

C. Major Assumptions Pertinent to Project Success

The major assumption is that the various entities of the RTG, both MOAC and other agencies will make their resources available on a timely basis so that the project can be implemented smoothly. It must be assumed that the inputs to agriculture (seeds, credit, fertilizer, pesticides, storage) will be available in sufficient quantity to enable the farmers in the selected tambons to benefit from them.

D. Host Country and Other Donor Activity

The IBRD has experimented with a "farmer foreman" approach in Chainat, Central Thailand. Many lessons have been learned from this effort in areas such as compensation, absorptive capacity of individuals and optimum areas which can be covered. Data derived from it will be used to guide the implementation of this Project.

Both the IBRD and FAO are developing projects with the RTG in NE Thailand which will complement this project. The IBRD Northeast Rural Development Loan, soon to be negotiated, includes development of the farmer foreman extension system for farmers in non-irrigated agriculture areas in four provinces in the Northeast, Ubon, Korat, Yasothon and Roi Et. Construction of a training center is included in the project. The IBRD Northeast Rainfed Agriculture Project also has a farmer foreman component and includes construction of a training center, probably at the NEAC in Khon Kaen. Additionally, the FAO supported Kalasin experimental station will be a primary training focus for the project. The Japanese supported sericulture center at Korat will be another research center which will participate in this project.

The RTG has been committed to more effective agricultural extension for years. Much assistance has come from the USG. The

NE agricultural center in Khon Kaen, the most important research center in the NE, will be used extensively in this project and the RTG has already made preparations for this.

E. Alternatives

Two alternatives present themselves, the first being the expansion of extension activities through increased numbers of Civil Servants; and the second being a concentration on the provision of other inputs to agriculture. The first has been rejected because the RTG is not prepared at this time to allocate sufficient CS positions. The MOAC visualizes the Tambon Volunteer as an interim measure preceding the desired increase in the number of Tambon extension officers. The second alternative would significantly improve the situation. Other donors, the RTG, as well as the USG, are working to increase the availabilities of physical and monetary inputs necessary to successful agriculture. The RTG through the NESDB and MOAC has clearly stated that a Tambon volunteer/agriculture extension official based outreach program is also necessary for increasing the well being of the poor rural farmer; and Mission investigation and analyses lead us to support this decision.

F. Major Direct and Indirect Beneficiaries

The major direct beneficiary will be the NE farmer who has little if any contact with the traditional extension agent. Indirect beneficiaries will be the agro-industrialist and his employees who will have an increased quantity of agricultural goods for his plant and a consequently higher income (assuming price stability).

G. Spread Effect

As the project will lean heavily on demonstration, there is a high probability that all those who view these demonstration plots will benefit from spread. Also, if the project proves successful in helping raise incomes and productivity, it will probably be applied throughout the country. Increased employment in secondary industries, higher tax revenues accruing to the government and an improved life style are all effects which could result from this project.

II. Financial Requirements and Plans

The total five-year project cost will be approximately \$6 million. It is expected that AID will be asked to fund 50% of the total cost or approximately \$3 million, all of which will be loan funds except the evaluation and training abroad elements (approximately \$125,000).

Estimated Costs

Five Years

Tambon Volunteer Maintenance Allowance B 500/mo.	\$1,950,000
Training of Tambon Volunteers & regular Ext. Agents	\$1,000,000
In-Country	(950,000)
Abroad	(50,000)
Technical Assistance	\$ 280,000
Evaluation	\$ 75,000
Commodities (motorcycles & visual aids)	<u>\$1,200,000</u>
Sub-total	\$4,505,000
Contingency 10%	450,000
Inflation 25%	<u>\$1,045,000</u>
Total	\$6,000,000

III. Development of the Project

A. Studies and Analyses

1. An evaluation of the farmer foreman experiment to determine its successes and failures and reasons for each.
2. An analysis of the DEIDS village health volunteer project in Lampang which will help in the design of the actual outreach program.
3. An analysis of the capacity of the DOAE to support this effort administratively, and an analysis of what steps must be taken to assure that full interministerial and interinstitutional coordination and cooperation will occur.
4. A study to develop a list of criteria to be followed in the selection of Tambon Volunteers, including socio-cultural profiles and leadership characteristics.
5. An analysis quantifying what resources are required or will be available to support the Tambon Volunteer and the rural farmer who is impacted by this project.
6. An analysis identifying the crop and information mix of the various training programs to be undertaken and manpower needed to conduct them.

B. PRP and PP Schedule

1. PRP will be submitted NLT 11/30/75
2. PP submission FY 1977

C. Resource Requirements for Project Development

1. Two AID/W technicians for 1 mm each at PRP stage to undertake studies III. A. 1 and 2.
2. One public administration expert for 1 mm at PRP stage to undertake study III. A. 3.
3. Six mm of expertise to carry out analyses III. A. 4. through 6 at PP stage.

On March 5, 1975 the Royal Thai Government passed a Land Reform Bill. It is now establishing the Office of Land Reform within the Ministry of Agriculture and Cooperatives (MOAC) and are about to initiate a land reform program in Thailand. The RTG has, on an informal basis, requested USOM assistance. Tentative RTG land reform plans focus directly on the poor landless farmer. Given the Congressional Mandate and RTG interest in our assistance we feel a good project could develop. However at this time RTG plans are not advanced sufficiently to identify a specific project for USOM support. If we have indications that a PRP could be developed prior to November 1975 USOM proposes to submit a complete PID for AID/W consideration.

Housing Investment Guarantees

USOM does not plan to submit any PID's for activity in FY 1977 under the Housing Investment Guarantee program. The RTG is currently in the process of reorganizing its own internal sources of finance in order to make 3,500 million (\$175 million) available to the housing sector. USOM anticipates that elements of the RTG concerned with housing (Ministry of Finance and the National Housing Authority) may be seeking some short term consultants in FY1976 and 1977 either from AID or other donors to assist in this reorganization. However, they have not identified their specific needs to date.

In the area of housing for low income earners, USOM is closely following the IBRD's progress in developing a "sites and service" and slum renewal project for Bangkok. The Bank anticipate the proposal will be ready for their consideration for FY 1977 funding.

The RTG has indicated that there is no need for AID's HIGs in FY 1977. The possibility of future use of HIGs will wait for and be influenced by the results of the present reorganization and the IBRD activity.

SUMMARY TABLE

AID Financial Support for Private Voluntary Organizations
(\$ 000)

Country: Thailand

<u>I. ONGOING GRANTS</u>	<u>FY 1976</u>	<u>INT. QTR.</u>	<u>FY 1977</u>
<u>A. Ongoing Operational Program Grants</u> <u>(initiated FY 75)</u>			
No. 1 Credit Union Training & Development	21.0	5.0	17.2
No. 2 Food & Nutrition Development, South Thailand	15.0	4.2	33.0
No. 3 Womens Development Program, Girl Guides Association of Thailand	5.8	2.0	25.7
No. 4 Young Presidents' Organization Management Assistance	25.0	--	--
Subtotal	(66.8)	(11.2)	(75.9)
<u>B. Non-Operational Program Grants</u>			
No. 1 Asia Foundation Support (DPGS) to Thai Projects (D)	10.0	2.4	8.0
Subtotal	(10.0)	(2.4)	(8.0)
<u>II. NEW GRANTS</u>			
<u>A. Operational Program Grants</u>			
No. 1 Womens' Rural Development Project (D)	35.0	5.0	25.0
No. 2 Village Development Project Northern Thailand (D)	15.0	10.0	36.0
No. 3 Urban Slum Nutrition & Health Project (D)	18.0	3.0	21.0
No. 4 Young Presidents' Organization Management Assistance (D)	8.0	4.0	18.0
No. 5 Student Village Volunteers (D)	16.1	3.1	24.0
Subtotal	(92.1)	(25.1)	(124.0)
<u>B. Non-Operational Program Grants</u>			
No. 1 Asia Foundation (D)	5.0	2.0	3.0
No. 2 U.S. Young Mens' Christian Association Support to Thai Projects (D)	25.5	5.0	30.0
No. 3 National Clearing House for PVO Activities	15.0	5.0	--
No. 4 Family Health Promotion Association(D)	7.9	2.1	16.0
Subtotal	(53.4)	(14.1)	(49.0)
<u>III. LOANS</u> N.A.			

(D) indicates that primary focus is development.