

AIRGRAM

DEPARTMENT OF STATE

~~PROJ NO 4930163.2~~

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TO - AID/W TOAID A- 1247 X

FROM - BANGKOK

SUBJECT - Non-Capital Project Paper (PROP) Technical Training for Accelerated Development

REFERENCE -

Country: Thailand Project No. 493-11-810-163.2

Submission Date: July 9, 1969 Original X

Project Title: Technical Training for Accelerated Development

U.S. Obligation Span: FY 1965 - FY 1975

Physical Implementation Span: FY 1965 - FY 1975

Gross Life of Project Financing Requirements:

U.S. Dollars	\$5,876,000
Cooperating Country:	
U.S. Owned Local Currency	--
Counterpart Funds	4,898,000
Regular Budget	3,225,000
Total	\$13,999,000

PAGE 1 OF 15 PAGES

DRAFTED BY DGraham RBBarton:em	OFFICE ED/TE P/P	PHONE NO S-63 224	DATE 7/9/69	APPROVED BY: A.H. Boehme, Acting Asst. Dir. for Program
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AID AND OTHER CLEARANCES

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TECHNICAL TRAINING FOR ACCELERATED DEVELOPMENT

I. SUMMARY DESCRIPTION

The purpose of this project is to assist the Department of Vocational Education of the RTG Ministry of Education to develop, accelerate and expand the "extension" training activity of the North-eastern Technical Institute (NETI), Korat. The word "extension", as used here, is not a narrow and restrictive professional term; it is intended, rather to convey the emphasis of the project on the expansion of occupational training services through the use of available training resources by reaching beyond the boundaries of the NETI campus for both facilities and special instructional talent.

During the last three years, this project, centered at NETI, has demonstrated the feasibility of meeting unusual, special and urgent training needs through what in Thailand are considered unorthodox measures for a regular institution of the school system. Using an approach that is standard practice in the U.S., NETI has produced over 2,500 trained workers for ARD, MDU, CD, and the Department of Land Development, including heavy equipment operators and mechanics, surveyors, draftsmen, design and construction technicians, without which many development activities could not have been undertaken.

The project is being modified to insure that this service capability continues to grow and mature and that NETI assumes a leadership role in utilizing the expanding facilities in the Northeast to meet a much wider range of the manpower training needs of development in the region.

USOM will provide through a six-year contract, 15 man years of full-time advisory services and 5 man years of short-term training specialists' services to provide MOE/NETI personnel with the administrative, organizational and management capabilities to establish training programs. These programs will be designed both to identify specific, current training needs and to meet those needs in the most efficient way, especially by utilizing already available facilities and staff in such places as vocational high schools (including those of the IBRD vocational education project), the Mobile Trade Training Units (MTTU), and private factories in the Northeast.

Besides the contract, 15 people will be sent to the U.S. for special training in vocational education and extension programs and then will be assigned to NETI upon their return.

The RTG will: (a) provide adequate counterpart staff who will manage and operate the training program thru NETI with the assistance of the contract team; (b) insure that local currency costs of training courses are met through regular budget, counterpart funds, or fees charged to the students or their employers, public or private; (c) provide the standard local currency support for contracts paid for by USOM.

Since one of the purposes of this project is to use more fully facilities and equipment that are already or will be available at NETI and other public institutions such as IBRD Phase I and Phase II vocational schools and private factories, commodity requirements will be small and limited to special training aids and materials that are needed for particular courses of training. When these can be produced locally (in some cases using the contractor's assistance or guidance), they will be supplied with baht through one of the means listed under (b) above. When the items needed are not produced locally, and can be supplied from U.S. producers, they will be supplied by USOM through the normal PIO/C procurement procedures under this project.

II. SETTING OR ENVIRONMENT

Thailand, particularly northeastern Thailand, is acutely lacking in the amount and quality of trained human resources for planned and desired development activity, both governmental and private. Public in-school training at the skilled and technical levels, though correctly placed for in-school youth at the secondary and post-secondary level, is serving but a fraction of those who want and need such training. For example, NETI (the only major technical institute in the 10-million population Northeast) has an enrollment of 1,100; it graduates annually from its regular program fewer than 300 persons. In 1968, less than 40% of the applicants for entry were admitted. Yet, NETI shops, classrooms, library and laboratories are almost 100% closed, idle and unproductive during "non-school" hours, and this is generally true of most of the lower level vocational high schools in the Northeast as well. One result is that the school drop-out and the unsuccessful competitor for the limited openings in higher schools have almost no other opportunities for improvement or advancement. Literacy training and the work of the MTTU's are the only major exceptions.

NETI is neither prohibited nor officially discouraged from expanding its services. In fact, it is specifically authorized to organize and conduct "special programs" of training to meet special needs. It may hire outside persons as teachers, or use regular faculty members, paying them extra for the added service. Course content may be tailored to any particular need without prior approval from the Ministry of Education, if the course is less than one year in length.

Why, then, is not the NETI campus busy with such activity day and night, serving hundreds - even thousands - of out-of-school youth and adults? Why is existing Thai "know how" not generally engaged in producing more? The answers are historical as well as cultural.

NETI was established in 1956, when Thailand's trade schools were operating at the 8-9-10th school year level. As with all of the earlier-created institutes, NETI was assigned to function at the 11-12-13th year level. It was staffed with that level in mind. With the subsequent elevation of trade training to the 11-12-13th year level, NETI has undertaken the transition to the 14-15th year level in many of its instructional areas. Neither its original faculty nor its physical plant fitted well the elevated assignment. The present Director of NETI holds a PhD. Five staff members hold masters degrees (only one of them in engineering). Less than 40% of the remainder hold even a bachelors degree. One-fifth of the degree holders are in non-teaching assignments (e.g., librarian, registrar, counselor, etc.). Furthermore, the security of government employment has held those faculty members least tempted by outside offers. Low government salaries, and assignment outside the capital city area, has appealed to almost none of the graduate engineers needed for the faculty.

Aside from the training for ARD previously under this project (all during "school" hours, and externally stimulated), NETI is almost totally inexperienced in extension training. The operation of a large, responsive, flexible, "evening school" type of program calls for talents, skills, and energies seldom required in the management of a placid, routine day school. To be truly responsive, a major extension training program must find its roots in continuous, in-depth interrelationships between school and "community" -- employers, officials, other schools, the public, societies and associations, government agencies, etc. (Universities, other technical institutes, trade schools, agriculture schools, farmers' associations, factories, changwat officials,

commercial schools, academic high schools, the Royal Irrigation Department, store managers, hotel operators, bus company owners, building contractors, the Labor Department, the Department of Local Administration, newspaper and radio/television media officials, the Provincial Electrical Authority -- these are but a few of the scores of "points of contact" necessary for an effective training program of the type herein proposed.) Such wide and "busy" relationships are difficult to create in some cultures, including that of Thailand. They are fortunately, not impossible to achieve and the task becomes easier as the benefits become mutually evident. Relationships, however, are personal (at least at first) and must be individually built up. In time they can and should become institutional, at least partially inheritable by the new incumbent of a position.

NETI at present has a limited horizon and limited relationships. The experience of NETI under this project since late 1966, in working with other RTG agencies (notably ARD), has revealed both its inexperience in cooperation (and its apprehensions) and its capacity for success, producing almost 2,500 workers for various RTG agencies during that period. It should be noted that these people were trained, in daylight hours, without reduction in NETI's "normal" output.

Another principal obstacle is the low, non-competitive level of RTG salaries. Recruitment of the best qualified teachers is extremely difficult in competition with the offers of private industry. Teachers who train future workers should equal in competence the supervisors under whom those workers will serve after training, but a competent person in a private industry supervisor's job receives 3 to 5 times the salary he would receive as a teacher in a public school like NETI.

Another difficulty lies in the RTG/MOE property accountability system which makes one person solely responsible for a particular grouping of non-expendable property items. Under this system, a shop teacher in the "regular" program may fear and resist the use of "his" tools and equipment by, for example, an evening school teacher.

As the capital city, Bangkok is (with reason) the focal point of Thai concern; the best of everything is assumed to be in Bangkok. Getting a job in Bangkok is, for a provincial Thai citizen, a status raise in itself. Conversely, moving outward from the capital city carries the flavor of demotion. The development in the Northeast of a

technical institute at least equal to Bangkok's best would be politically impressive to citizens of the region.

Thailand's public educational system has some features in its administrative structure which make coordinated effort difficult among the total group of schools in a given community or area. Academic schools, trade schools, commercial schools, agricultural schools, etc., are each responsible to their individual departments or divisions in Bangkok. It must be anticipated, therefore, that NETI will need to expend special energies to coordinate any new training programs with on-going and developing programs of other schools in its area.

In summary then, this project deliberately confronts head-on several major RTG problems or weaknesses:

- a. There is a lack of sufficient economically-useful training for out-of-school youth and adults.
- b. There is a low utilization rate of existing physical resources for training.
- c. There is little involvement of high-level Thai skilled workers (including those in the private sector) in public programs of training and manpower development.
- d. Training is often of poor quality or inappropriate to actual job requirements.
- e. Weak or insufficient school-employer, school-community relationships slow down the response of schools to training needs.
- f. Bangkok living conditions and job opportunities (both public and private) draw most qualified people away from rural areas.

III. STRATEGY

Generally, the strategy is to establish a center at NETI (operated completely without USOM assistance after six years) where manpower training needs will be anticipated and met, using NETI resources or the most practicable and appropriate other resources, public or private, or

any suitable combination of these. Pertinent, timely information about training needs will be gathered at NETI from public and private employers, Labor Department's Placement Centers, etc. Training resources used to meet these needs will include staff and facilities of NETI, but also of other schools, ministries and agencies, and of the private sector. NETI has been chosen as the site for this center because it is already partially prepared by experience gathered in the last three years to provide these types of services; it is well situated in an important geographic area and is somewhat attuned to the world beyond its campus.

IV. PLANNED TARGETS, RESULTS AND OUTPUTS

The objectives of this project are to build up a capacity:

- a. to make prompt discovery and definition of specific training needs as they arise;
- b. to insure a rapid response to these training needs; and
- c. to make greater utilization of existing training resources -- both facilities and staff.

A. First objective: Prompt discovery and definition of specific training needs as they arise.

Manpower studies are poorly suited to planning needs of vocational education. For an hypothetical but not untypical example, such a survey might conclude that "the chemical industry will need an additional 3,600 skilled workers by 1980". Only specific, continuous consultation with employers and employment agencies would reveal that this 3,600 was actually an assorted group of draftsmen, auto mechanics, electricians, carpenters, plumbers, welders and pipefitters. Within his field, each one would need special skills applicable to the chemical industry, but there might not be a chemist in the crowd. In other words, school-labor employer consultations are essential for correct identification of training needs.

B. Second objective: Rapid response to training needs.

The rate of response now measured in years must be reduced to months, even to weeks. Employers often cannot define and quantify

their manpower needs beyond those of the next three to six months. The nation's development need not suffer from this uncertainty if training can be speedily initiated. NETI must develop the capability to respond rapidly to current training priorities. While specific priorities cannot be predicted with assurance, they will certainly be generated by activities planned or expected in areas of rural electrification, water resources and irrigation development, farm mechanization, crop diversification, expansion of radio and television, enlargement of highway system, Northeast urbanization, agricultural marketing changes, and growing use of air conditioning and refrigeration. Therefore, developing a quick response capability is a more realistic and sensible approach than attempting long-term anticipation of particular needs.

C. Third objective: Greater utilization of existing training resources.

NETI, like other schools, is idle at night and, except for training for ARD, inactive on weekends and during school vacations. Talented non-educators are seldom recruited as special instructors, and factory production and other privately owned equipment is rarely used for training in situ. NETI almost never engages in training cooperatively with other schools such as Korat Trade School, Khon Kaen University, the MTU's or the IBRD trade and industrial vocational high schools. All these are existing sources for greater human resource development and will be included in this broader, more flexible training system.

Specifically, the project is designed to assist NETI in (1) taking the initiative in determining (by various means, including use of the informational services of the RTG Labor Department) current and impending manpower and training needs of the Northeast; (2) expanding the use of its own facilities and staff in circumstances where NETI staff and facilities are adequate to the task; (3) discovering, and enlisting for training purposes, facilities and/or instructional talent off-campus, and giving professional educational guidance, as required, to technically skilled persons who are not professional instructors; (4) developing the capacity to discover and definitively to describe the skill and knowledge ingredients of an occupation for which training may be required, and to draw up therefrom a compact and efficient course

of instruction. Finally, the project is also designed to provide for the Ministry of Education, by the activity of the project itself, a working demonstration of a flexible and responsive training service which is readily duplicable in many other locations in Thailand.

As actions are taken to achieve the objectives listed above, it is projected that by FY 1975 about 3,000 persons per year should be receiving short-course training at NETI and other northeast institutions in a wide range of occupational areas.

The fields of instruction cannot, and should not be rigidly pre-determined, but demands for training in the following areas are expected (those underlined are considered now to be the most urgently needed):

Electricity and electronics; radio and television - receiver servicing, broadcast station operation and maintenance; power generation and transmission, automation fundamentals.

Business; typing, shorthand, bookkeeping, management (including special requirements of agriculture), simple business law.

Internal combustion engines; automotive vehicles; heavy construction equipment operation, maintenance and repair.

Civil technology, drafting, surveying, design, soils study, highways, buildings, masonry.

Farm mechanics.

Metal Technology; foundry, machine shop, plumbing, pipefitting.

Printing and graphic arts.

Refrigeration and air conditioning; installation and servicing.

Industrial methods and techniques.

Occupationally related subjects (e.g., mathematics, simple hydraulics, new developments in some specialized work, etc.)

The foregoing is by no means totally inclusive, but is certainly representative of the diversity sought.

V. COURSE OF ACTION, METHOD OF APPROACH

A team of contract personnel from an appropriate U.S. institution will guide the initiation of extension services through NETI. Three long-term technicians will be provided under this contract, with the following specific assignments, total assignment duration, and approximate dates of service:

a. (Chief of group) Specialist in the promotion and management of multi-level short-course programs of occupational training. Six years. January 1, 1970 - December 31, 1975.

b. Specialist in short-course curriculum construction and facility scheduling. Five years. July 1, 1970 - June 30, 1975.

c. Specialist in vocational-technical education coordination. Four years. July 1, 1970 - June 30, 1974.

In addition, five man-years of short-term consultant services, in special instructional and material preparation fields, will be provided under the contract. Half of this short-term consultant use is expected to be made during the period July 1, 1970 - June 30, 1971.

Since the primary objective of the project is to establish a new philosophy and approach to training, heavy emphasis will be placed on the appointment and training of counterpart personnel within NETI's seven technical skills divisions. The three long-term advisors will have as their prime responsibility the training of the key Thai personnel of NETI in the techniques of extending training services. The heart of this training will be demonstration of "how it is done", while involving NETI staff in the process. The demonstration will be a process of step-by-step growth of both the extension training program itself and the Thai personnel. Duration of each of the three long-term positions is based upon the estimated relative difficulty of establishing full MOE self-sufficiency in the stated administrative, managerial and supervisory skills unique to a vital extension activity.

The first long-term advisor will work with two counterparts: the Director of NETI and his appointed Head of Extension Programs. With them he will work out plans for long-range operations and operational philosophy. He will familiarize himself with existing resources of NETI, both human and material, and with the on-going program of training for ARD at NETI, the activities of which are one form of extension of NETI training services. With his counterparts he will initiate contacts and communication with sources of information about significant training needs (e.g., the Korat employment service office of the Department of Labor, major public and private employers, etc.) With his counterparts he will also become acquainted with the chief officials of other MOE schools in the Korat area, explaining the plan for extension of NETI services, and exploring their interest in a community-wide endeavor.

The second member of the contract group will advise NETI office personnel on problems regarding scheduling of the use of facilities and staff--ie., shops, teachers, housing, transportation--as the use of these becomes increasingly fluid. He will also train key personnel of NETI instructional departments in quick development of tailored short courses of instruction for specific needs.

The third contract team member will have at least one counterpart in each NETI instructional department, with whom he will work on off-campus coordination tasks which relate to the particular department. As the coordination tasks increase with the growth of the program, it will become necessary for NETI to establish a new full-time position of extension program coordinator. (This should occur no later than the end of the second year of contract operation.) This person will thereafter be the principal Thai counterpart of the third U.S. advisor, but the instructional departments' personnel will continue to participate in coordination activity, under the guidance of the new NETI coordinator. The coordination activity will gradually take on the major burdens of discovering training needs, defining those needs by information obtained from employers and other valid sources, and delivering that information for the joint use of the second contract advisor and his departmental and office counterparts in scheduling and short-course curriculum development.

Short-term consultants' services will particularly be needed in the early portion of the contract effort to assess the current capability

(in terms of both staff and facilities) of NETI and other public as well as private institutions to carry out extension training in various instructional areas. They will help determine:

- a. The kinds of instruction that NETI could immediately undertake;
- b. The kinds of instruction that would require off-campus experts to teach at NETI;
- c. Which commodities, if added, would permit what additional training;
- d. The kinds of instruction that should be given off-campus (because of unique equipment, limited demand, high cost, etc.) at employment locations.
- e. The kinds of instruction that should be referred to other schools, or be performed jointly by NETI and another school.

Some short-term advisors may also help develop the capability in a group of NETI staff to train public and private employees in how to prepare equipment manuals of operation and maintenance. Extension training activities and courses will be initiated whenever, in each specific case, all of the following conditions exist:

- a. Economically worthwhile employment is available, after training, to those persons to be trained;
- b. Adequate facilities (and supplies, if required) are available, on or off the NETI campus, for the conduct of the particular training;
- c. A capable instructor (or instructors) is available (from the NETI faculty, or from other schools, agencies or the private sector);
- d. Reasonable numbers of potential trainees are available with the capability to profit from the training and to qualify for employment at the close of training, and with the intent to enter that employment;

e. A competent course of study has been prepared.

Advisory committees to provide information and guidance will be established, eventually in all major towns in the Northeast, through NETI's guidance with the assistance of the contract team.

As part of the emphasis on developing the capabilities of the NETI staff in extension training, 15 people will be sent to the U.S. for advanced training. These people may be drawn from NETI staff but only when a replacement is hired to fill the vacancy. This should help insure that there will be an increase in the staff and an adequate number of qualified counterparts to the contract personnel.

HANNAH

ATTACHMENT A

NONCAPITAL PROJECT FUNDING (OBLIGATIONS IN \$000)

Table 1

Page 1 of 2

COUNTRY:

Project Title: Technical Training for
Accelerated Development

PROP DATE 7/7/69

Original x

Rev. No.

Project No. 493-11-810-163.2

Fiscal Years	Ap	L/G	Total	Cont ^{1/}	Personnel S rv.		Participants		Commodities		Other Costs	
					AID	PASA	CONT	U.S.	CONT	Dir	U.S.	Dir
Prior through Act. FY 69	SA	G	4,396	1,361	244	243	1,361	24		2,203		321
Oper. FY 70	SA	G	505	295	50		280	50		110	15	
Budg. FY 71	SA	G	360	180	25		180	50		105		
FY 72	SA	G	255	175	25		120	50		60		
FY 73	SA	G	180	120	25		120			35		
FY 74	SA	G	135	80	25		80			30		
All Subs. (75)	SA	G	45	20	25		20					
Total Life (Total FY 70-75)	SA	G	(1,480)	(815)	(175)		(100)	(150)		(340)	(15)	
Total life	SA	G	5,876	2,175	517	243	2,151	174		2,543	15	321

^{1/} Contracts--Memorandum (nonadd) column.

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NON-CAPITAL PROJECT FUNDING (OBLIGATION IN \$000)

Table 1
Page 2 of 2

Exchange Rate \$1 = 20

Project No. 403-11-010-163.2

	AID-controlled <u>Local Currency</u>		Other Cash Contribution Cooperating Country Reg. Bud. ^{1/}	Other Donor Funds (\$ Equiv.)	Food for Freedom Commodities		
	<u>U.S. Owned</u>	<u>Country- Owned</u>			<u>Metric Tons (000)</u>	<u>000 Value & Freight (\$000)</u>	<u>World Market Price (\$000)</u>
Prior through Act. FY 69		2,000	400				
Over FY 70		570	250				
Budg. FY 71		615	325				
FY 72		565	400				
FY 73		645	600				
FY 74		305	600				
All Subs. (FY 75)		250	650				
Total Life		4,600	3,225				

^{1/} Regular RTG Budget monies related to or supporting project activities.

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