

FIVE YEAR PLAN FOR
VOCATIONAL EDUCATION
IN LAOS

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PART I

BACKGROUND INFORMATION

The Department of Vocational Education has been given the responsibility for the development of a system of skill and teacher training programs to meet the needs of the country. Presidential decrees No. 73/PC and 1126/PC spell-out this responsibility and grant authority for issuing Vocational Certificates and Diplomas for the various types of training programs.

At present, there are three centers that offer vocational training. These centers are the Vientiane Technical School, the Savannakhet Technical School, and the Lao-German Technical School.

There are five Fa Ngum High Schools being developed to offer pre-vocational training prior to entering the regular vocational training programs. These schools are located at Vientiane, Phone Hong, Luang Prabang, Savannakhet and Pakse. Beside these programs, there are four (4) small craft training programs which are non-formal semi-skilled training for village life.

All other education is based on the traditional formal education of preparing the individual to go to higher education. Teacher Training is being developed based on the traditional education. Vocational programs now include Industrial Education (Technical Education).

The following is an attempt to identify the role Vocational Education can play in developing Laos into an independent nation. Approximately thirty

percent (30%) of the population has been displaced from their former homes where they were self-sufficient; the refugee programs of the RIG is helping these people become established in new locations and utilizing their agricultural skills in establishing new communities. With about one third of the population dependent upon the Lao government for part of their support, additional measures must be initiated to assist these people to become self-sufficient. Furthermore, there is a large percentage of the male population in the military service. At present these citizens are non-productive. However, since the cease-fire agreement has been signed, it is anticipated that these citizens will return to civilian life where they could become dependent on the central government.

There is a large rural population in Laos who have not changed their way of living for several hundred years. These people need to be given the opportunity to become a part of the total national development.

The National Education Reform Act of 1962 for Laos indicates that leaders of the country are aware of the need for all types of skill training to raise the economy of the country. To implement what the Lao recognize as essential in Vocational Education, it will require an Educational program that will meet that needs of the people within a limited time and a reasonable cost. This program must transfer those citizens who are dependent upon the RIG to the role of producers who can contribute to the economic development of their country.

The necessary resources must be provided to make Vocational Education available to assist the majority of Lao citizens to become more productive. If this is not accomplished, there is no hope of having an economy free from external assistance.

These resources must develop:

- 1) An organization for Vocational Education.
- 2) A flexible curriculum based on local needs and resources through a comprehensive trade and job analysis.
- 3) Trained Teachers to develop a Teacher Training Program that will supply teachers in sufficient number for the expanding Vocational Education program.
- 4) Proper facilities and sufficient equipment to meet curriculum requirements.
- 5) An Instructional Materials Center and trained personnel to produce instructional materials as required.

Also, these resources must provide:

- 1) Participant training
- 2) Facilities and Commodities
- 3) Technical Assistance which would consist of one full-time direct hire advisor along with short term consultants as the need arises.

These resources must build and utilize the products of the existing vocational program to create a National Program.

To develop a Vocational Education program for Laos, the following must be accomplished:

- 1) Offer equal education opportunity to all Lao citizens by expanding the present Vocational Education program to serve the entire nation and coordinate the Industrial Arts recruitment at the ENI schools to provide the various ethnic minority groups equal opportunity to enter the Vocational training programs.
- 2) Develop the Lao Vocational Education programs in a manner that will permit an individual who has completed the highest level available in Laos to continue on in Thailand or other countries if higher level training is desired or needed. However, the Vocational Education program in Laos will be developed up through the second cycle (grade 11). This will be a two track program to enable those students who have the capability and desire to further their education at a higher level.
- 3) Develop a time schedule for expanding the present program. This would include: training of personnel, instructional materials development, planning and construction of facilities, and establishing school - industry cooperative programs, which would assist school graduates to start small businesses or industries.
- 4) Develop an organization that has the capability of effectively administering the National Vocational Education programs.
- 5) Determine the total staff needs and level of training necessary to carry out the National Vocational Education program.
- 6) Develop a flexible curriculum that will meet the economic needs of Laos, and meet the requirements of the decrees.

- 7) Develop an instructional materials center, along with personnel, capable of producing the required instructional materials.
- 8) Develop a Maintenance and Supply Division within the department of Vocational Education. This is a support organization and would be responsible for:
 - a. Procurement, stockage and supply of equipment, tools, parts and materials.
 - b. Inventory control.
 - c. Field maintenance and repair.
- 9) Develop a Guidance Services Branch, which will include placement and follow-up of graduates.

PART II

A FIVE (5) YEAR PLAN FOR THE DEVELOPMENT OF VOCATIONAL EDUCATION
FOR THE ROYAL LAO GOVERNMENT

The next (5) Five Year Plan for the development of a Vocational Education program in Laos is as follows:

FY 1974

- 1) Send 15 participants to Thailand for three years training at Northern Bangkok Engineering School in the following areas:

Machine Shop	3
Sheet Metal & Welding	3
Auto Mechanics	3
Electricity	3
Electronics	<u>3</u>
	15

- 2) Send 7 participants to Thailand for three years training in Building Construction.

Send 4 participants to Thailand for three years training in Commercial subjects, and General Drawing.

- 3) Send 24 participants to Thailand for 600 clock hours of short term training in the following areas:

Agriculture	4
Dressmaking and tailoring	4
Food and Nutrition	4
General Metals	4
Commercial Subjects	4
Building Construction	<u>4</u>
	24

- 4) Send 2 participants to Thailand for short-term training in Administration and Supervision of the Short-Term skill training programs.
- 5) Prepare plans and specification for the expansion of the existing Vocational Education facilities. This will include a list of needed commodities.
- 6) Establish a direct-hire Vocational Education position to assist the RIG in:
 - a. The coordination of the proposed participant training program.
 - b. The development of a Vocational teacher training program.
 - c. The development of the short-term skill training program.
 - d. The development of plans for expanding existing Vocational Education facilities.
 - e. The development of plans for new Vocational Education facilities and perform other duties as required to develop the skill-training program for Laos.

FY 1975

- 1) Send 25 participants to Thailand for three years training at Northern Bangkok Engineering School in the following areas:

Machine Shop	5
Sheet Metal & Welding	3
Auto Mechanics	4
Electricity	10
Electronics	$\frac{3}{25}$

- 2) Send 11 participants to Thailand for three years training in Building Construction.
- 3) Send 4 participants to Thailand for three years training in Drafting.
- 4) Send 9 participants to Thailand for three years training in Commercial Subjects.
- 5) Send 2 participants to the United States for 4 years training in School Administration and Supervision.
- 6) Send 28 participants to Thailand for 600 clock hours of short-term training in the following areas:

Agriculture	4
Dressmaking and Tailoring	4
Food and Nutrition	4
Electricity and Radio	4
General Metals	4
Commercial Subjects	4
Building Construction	<u>4</u>
	28
- 7) Send 2 participants to Thailand for short term training in Administration and Supervision of the short-term skill training programs.
- 8) Start construction for the expansion of existing Vocational Education facilities. Procure required commodities for expanded facilities.

FY 1976

- 1) Send 50 participants to Thailand for three years training at Northern Bangkok Engineering School in the following areas:

Machine Shop	11
Sheet Metal & Welding	10
Auto Mechanics	11
Electricity	16
Electronics	$\frac{2}{50}$

- 2) Send 19 participants to Thailand for three years training in Building Construction.
- 3) Send 5 participants to Thailand for three years training in Drafting.
- 4) Send 14 participants to Thailand for three years training in Agriculture and Commercial Subjects.
- 5) Send 16 participants to the United States for training in School Administration and Supervision, Curriculum Construction and Guidance Services.
- 6) Send 35 participants to Thailand for 600 clock hours of short-term training in the following areas:

Agriculture	5
Dressmaking and Tailoring	5
Food and Nutrition	5
Electricity and Radio Repair	5
General Metals	5
Commercial Subjects	5
Building Construction	<u>5</u>
	35

- 7) Send 9 participants to Thailand for short-term training in the Administration and Supervision of the short-term skill training programs.
- 8) Complete construction and the installation of equipment on the expanded facilities.

FY 1977

- 1) Send 44 participants to Thailand for three years training at Northern Bangkok Engineering School in the following areas:

Machine Shop	12
Sheet Metal & Welding	8
Auto Mechanics	10
Electricity	12
Electronics	<u>2</u>
	44

- 2) Send 17 participants to Thailand for three years training in Building Construction.

- 3) Send 16 participants to Thailand for three years training in the Agriculture, Commercial Subjects and General Drafting.
- 4) Send 3 participants to Thailand for three years training in General Drawing.
- 5) Send 13 participants to the United States for training in School Administration and Supervision, Curriculum Construction and Guidance.
- 6) Send 35 participants to Thailand for 600 clock hours of short-term training in the following areas:

Agriculture	5
Dressmaking and Tailoring	5
Food and Nutrition	5
Electricity and Radio Repair	5
General Metals	5
Commercial Subjects	5
Building Construction	$\frac{5}{35}$
- 7) Send 9 participants to Thailand for short-term training in School Administration and Supervision of the short-term training programs.
- 8) Select locations and prepare plans and specification for the four (4) additional Vocational Schools.

FY 1978

- 1) Send 41 participants to Thailand for three years training at Northern Bangkok Engineering School in the following areas:

Machine Shop	7
Sheet Metal & Welding	8
Auto Mechanics	8
Electricity	12
Electronics	$\frac{2}{41}$

- 2) Send 12 participants to Thailand for three years training in Building Construction.
- 3) Send 13 participants to Thailand for three years training in Agriculture, Commercial Subjects, and General Drafting.
- 4) Send 35 participants to Thailand for 600 clock hours short-term training in the following areas:

Agriculture	5
Dressmaking and Tailoring	5
Food and Nutrition	5
Electricity and Radio Repair	5
General Metal	5
Commercial Subjects	5
Building Construction	$\frac{5}{35}$
- 5) Send 9 participants to Thailand for short-term training in School Administration and Supervision.
- 6) Complete the plan and specification for the four (4) Vocational Schools.

PART III

RECOMMENDATIONS

It is recommended that:

- 1) Since Vocational Technical Education and Vocational Agricultural Education is under one administrative structure, serious consideration should be given to adding, when feasible, Vocational Agricultural programs to the already existing Vocational Schools. This would be a tremendous saving in administrative costs, new construction costs, and maintenance costs. Also, this organizational structure would lend itself to an efficient administrative operation.
- 2) An instructional materials center be developed with the capability of preparing and printing all the instructional material in Lao that is needed in Vocational Education programs. This will include the Vocational Teacher Training and the Short-Term Trade Skill Training Divisions. If the total Vocational Education program is to be successful, this center is a must.
- 3) A Maintenance and Supply Division (MSD) be established within the department of Vocational Education. This organization should be adequately staffed and financed to carry out the following responsibilities in support of all Vocational Schools under the direction of the Director of Vocational Education:
 - a. Procurement, stockage and supply of equipment, tools, parts and materials.
 - b. Inventory control.

- c. A maintenance shop to handle repair and rebuild activities to support all equipment assigned to the Vocational Schools.
 - d. Field maintenance and repair teams.
 - e. Training in equipment operation, maintenance and repair.
- 4) A Guidance Services Branch be established in Department of Vocational Education. The primary functions of this Service should be:
- a. To assist students in selecting the skill for which they are best fitted. Also, it is necessary for the guidance personnel to talk to the students regarding their needs, questions and frustrations.
 - b. To develop a placement and follow-up system. Here again is an opportunity for the guidance personnel to work with the Department of Labor with its knowledge of skills, opportunities for job placement, manpower needs and job requirements. The skill training curriculum should be based on local needs and resources, through a comprehensive trade and job analysis; there should be flexibility and constant revision. Each school should have a good follow-up program with the guidance personnel working effectively with advisory committees; then, it is possible to keep the skill training programs up-dated to meet the needs of the communities.
 - c. To establish and develop school-industry cooperative programs, which would assist school graduates to start small businesses or industries
- 5) The Department of Vocational Education be decentralized to the point where each region has a supervisory staff with sufficient delegated authority to make decision and carry out plans. School directors should

have the necessary authority for proper programing, operations and management.

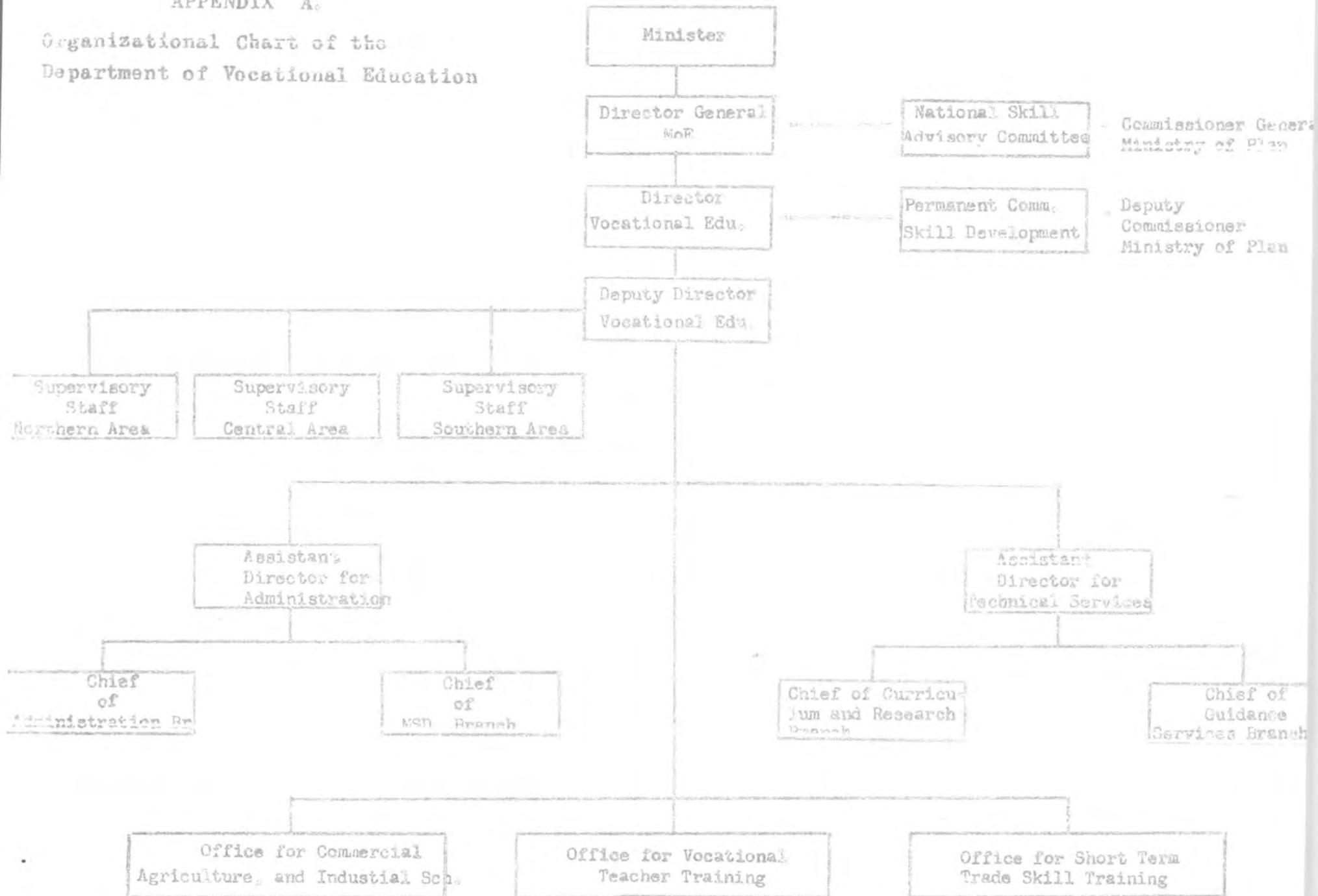
- 6) Short-Term Skill Training be expanded to serve present needs, and to meet future rapid changes in skill requirements as the Nation enters development expansion in the post-war period.

The Craft Schools should be developed to serve remote areas. These would be self sustaining units; small, flexible, and easily moved if necessary. They should be able to orient to local needs and offer a broad variety of skill training. A standardized achievement certificate should be developed based on accomplishment of learning objectives.

- 7) Vocational Teacher Training be under one administrative unit. This would include programs for Home Economics, Vocational Agriculture, Vocational Trade Training, Industrial Arts, Commercial Subjects and other specialized areas. When feasible, expand the teacher training curriculum to provide for the training of administrators, guidance counselors, and other specialized areas within the broad areas of Vocational Education and Educational Administration.

APPENDIX A.

Organizational Chart of the
Department of Vocational Education



Staffing and Training Requirements for the Vientiane Technical School

A. <u>VIENTIANE TECHNICAL SCHOOL</u>	Machine Shop				Welding Sheet Metals				Plumbing				Auto Mechanics				Electricity				
	10	13	15	17	10	13	15	17	10	13	15	17	10	13	15	17	10	13	15	17	
- Existing Program	7	10			7	10			7	10			7	10			7	10			
- Proposed Program	7	13			7	13			7	13			7	13			7	13			
- Present Staff	5				3				6				3				5				
Total Staff Requirements		8	3	2		4	3	2		4	2	2		6	5	2		8	3	2	
- Training Schedule	1974	1			1				1				1				1				
	1975	2			1				1				2				2				
	1976	3			2				2				3				3				
	1977	2	1			3				1			2	1			2	1			
	1978	3	1			1				1				1			3	1			
	1979		1			1								2					1		
	1980		2	1				1				1		1	1					1	
	1981			1				1				1			1						
	1982																				
	1983																				

Staffing and Training Requirements
for the Vientiane Technical School

Electric Motor Repair	Refrigeration Air Conditioning	Electronics				Radio - TV				Wood - Shop				Masonry			
		10	13	15	17	10	13	15	17	10	13	15	17	10	13	15	17
		11	13							7	10			7	10		
11	13			7	13	11	13			7	13			7	13		
										6				6			
		3	1		2 2		4 3		3 2		8 4 2		8 4 2		8 4 2		
							1				1		1		1		
		1			1		2		1		2		2		2		
		1			1		1		1		3		3		3		
		1							1		2 1		2 1		2 1		
			1				1						1				1
			1				1						2				2
													1				1
													1				1

Staffing and Training Requirements
for the Savannah Technical School

Electric Motor Repair				Refrigeration Air Conditioning				Electronics				Radio - TV				Wood - Shop				Masonry					
10	13	15	17	10	13	15	17	10	13	15	17	10	13	15	17	10	13	15	17	10	13	15	17		
11	13			11	13							11	13			7	10			7	10				
		3	1			2	2							5				6	3	1			6	3	2
										3	2														
		1				2					1							2					1		
		1				1					1							2					2		
		1									1							1	1				1	1	
			1				1													1					1
							1				1														
																				1					1

Staffing and Training Requirements for the Lao-German Technical School

C. LAO-GERMAN TECHNICAL SCHOOL

- Existing Program

- Proposed Program

- Present Staff

- Total Staff Requirements

1974

1975

1976

1977

- Training Schedule

1978

1979

1980

1981

1982

1983

	Machine Shop				Welding Sheet Metals				Plumbing				Auto Mechanics				Electricity			
	10	13	15	17	10	13	15	17	10	13	15	17	10	13	15	17	10	13	15	17
- Existing Program	7	9			7	9			7	9			7	9			7	9		
- Proposed Program	7	13			7	13			7	13			7	13			7	13		
- Present Staff	8				1	1			5				6				6			
- Total Staff Requirements		4	2	2	3	2	2		3	2	2		4	4	2		4	4	2	
1974		1			1				1				1				1			
1975		2			1				1				1				1			
1976					1				1	2			1				1			
1977			1			1								1					1	
1978			1			1								1					1	
1979			2							1				2					2	
1980				1			1								1					1
1981				1			1								1					1
1982																				
1983																				
TOTAL	18	12	6		10	9	6		10	6	4		15	14	4		15	10	5	

APPENDIX G,
Regional Map of Laos



APPENDIX D

Participant Training Schedule
for
Three Existing Vocational Schools

Instructional Staff	1974	1975	1976	1977	1978
- Machine Shop	3	5	6	7	6
- Sheet Metal & Welding	3	3	5	3	3
- Auto Mechanics	3	4	6	5	3
- Electricity	3	7	8	7	7
- Refrigeration	-	3	3	"	-
- Electronics	4	3	2	2	2
- Building Construction	7	11	14	12	7
- General Drawing	1	4	5	3	2
- Commercial Subjects	3	5	4	3	1
Total	27	45	53	42	31

Administration Staff	1974	1975	1976	1977	1978
- Deputy Director of Vo. Ed.		1	1		
- Asst. Director for Admin.		1	1		
- Asst. Dir. for Tech. Services			1		
- Branch Chiefs			2	2	
- School Directors			3	3	
- Supervisors			3	3	
Total		2	11	8	

APPENDIX E

Participant Training Schedule

for

The Four (4) Proposed Vocational Schools

Instructional Staff	1974	1975	1976	1977	1978	1979
- Commercial			5	5	5	5
- Machine Shop			5	5	5	5
- Sheet Metal & Welding			5	5	5	5
- Auto Mechanics			5	5	5	5
- Electricity			5	5	5	5
- Building Construction			5	5	5	5
- Agriculture			5	5	5	5
Total			35	35	35	35

Administration Staff	1974	1975	1976	1977	1978
- School Directors			2	2	
- Supervisors			3	3	
Total			5	5	

APPENDIX F

Participant Training Schedule

for

Twenty-Four (24) Craft Schools

Instructional Staff	1974	1975	1976	1977	1978
- Agriculture	4	4	5	5	5
- Dressmaking - Tailoring	4	4	5	5	5
- Food & Nutrition	4	4	5	5	5
- Electricity & Radio Repairs	-	4	5	5	5
- General Metals	4	4	5	5	5
- Commercial Subjects	4	4	5	5	5
- Building Construction	4	4	5	5	5
Total	24	28	35	35	35

Administration Staff	1974	1975	1976	1977	1978
- School Directors	2	2	6	6	6
- Supervisors	-	-	3	3	3
Total	2	2	9	9	9