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AGENCY FOR INTERNATIONAL DEVELOPMENT  
Washington, D. C. 20523

OFFICE OF THE AUDITOR GENERAL  
AREA AUDITOR GENERAL - EAST ASIA

AUDIT REPORT

USAID/LAOS

AGRICULTURE DEVELOPMENT PROJECT

CROPS AND SOIL SUBACTIVITY

NO. 489-11-190-065-1

A.I.D.  
Reference Center  
Room 1856 NS

Period Covered by Audit: Jan. 1, 1968  
to June 30, 1971

Audit Report No. 8-439-72-88

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# AUDIT REPORT

USAID/LAOS

## AGRICULTURE DEVELOPMENT PROJECT

### CROPS AND SOIL SUBACTIVITY

NO. 489-11-190-065-1

#### I. SCOPE OF EXAMINATION

We have performed an interim comprehensive audit of Agriculture Development Project, Crops and Soil Subactivity No. 439-11-190-065-1, which is administered by the Research Branch of USAID/Laos Agriculture Division (USAID/AGR/CS) and the Bureau of Agricultural Research of the Directorate of Agriculture (RLG/AGR/CS) of the Royal Lao Government (RLG), Ministry of National Economy. The audit was performed in accordance with provisions of AID Manual Order 793.1, "Audit of Technical Assistance" for the purpose of evaluating the effectiveness and efficiency of project goal implementation, and to identify and report any significant problems impeding project operations as well as to verify compliance with operational plans and agreements.

This audit covered the period from January 1, 1968, to June 30, 1971, and included: a) review of Project Agreements, prior audit report, latest Project Appraisal Report (PAR), other related documents and records as deemed appropriate; b) evaluation of project accomplishments, facilities and staffing patterns; c) test check of accuracy of financial records and supporting vouchers; d) follow-up of participant training and performance; e) review of accountability and control of AID-financed commodities; f) selective on-site physical inspections of facilities and of major non-expendable commodity items at Salakham, Hat Dok Keo, Pakse, Savannakhet, Luang Prabang and Sayaboury; and g) discussions with appropriate USAID/AGR/CS and RLG/AGR/CS personnel.

Significant matters disclosed by the audit are presented in Section V, Findings and Recommendations. Major findings are summarized in Section III.

## II. BACKGROUND INFORMATION

This project was started on July 1, 1963 as one of seven subactivities of USAID/Laos Agriculture Development sector with a long-range goal of achieving self-sufficiency in rice production and subsequently a balanced agricultural sector capable of satisfying all the food needs of the Lao people.

To reach this goal, the Crops and Soil Subactivity was designed to develop within the RLG/AGR/CS a capability for testing various agricultural crops and production techniques to determine the most suitable combination for conditions in Laos. Performance was to be directed toward: a) integrated programming with emphasis upon crop variety improvement and production practices to develop the most responsive combinations to increase yields, to provide improved rice varieties through the multiplication and certification of seeds and to promote multiple-cropping and diversification of other foods and year-round agricultural production; b) training, to develop a trained corps of high-quality research personnel and technicians in the RLG/AGR/CS for requisite leadership; and c) development of basic facilities and equipment for RLG/AGR/CS personnel to carry out project activities.

### Project Accomplishments:

#### a. Facilities

As of June 30, 1971, the project has assisted in establishing one central experiment station at Vientiane (Salakham) and four regional stations located at Vientiane (Hat Dok Keo), Sayaboury (Nam Tan), Pakse and Sedone (Bolivens PK-42) as well as seven local seed/plant propagation stations in Vientiane, Ban Houei Sai, Luang

Prabang, Sayaboury, Khammouane, Savannakhet and Sedone. The first central Plant Protection and Soil Laboratory is being constructed at Salakham station through funds provided by United Kingdom of Great Britain and Northern Ireland (UKG).

b. Training

One hundred and one participants (representing 50% of total projected to the 1979 target of 200) were sent for training, including four to the U.S., twenty-one to the Philippines and seventy-six to Thailand. Ninety returned and eleven are still in training in the three countries. In-country, in-service training has been administered to RLG/AGR/CS personnel in recent years, using returned participants as instructors.

c. Funding

From inception of the project on July 1, 1963, to June 30, 1971, cumulative dollar and local currency obligations and expenditures amounted to \$2,529,634 and \$2,388,441 respectively. Details of funding are presented in Exhibit I.

III. SUMMARY OF MAJOR FINDINGS

There is a need to develop and maintain adequate statistics for evaluation of project accomplishments and future planning (Para. V, B). Property control records and utilization of equipment are areas requiring attention of project personnel (Para. V, D).

IV. FOLLOW-UP ON PRIOR AUDITS

The initial Audit Report No. 69-3, dated October 3, 1968, was issued by the Audit Branch, Office of Controller,

USAID/Laos. The report contained six recommendations, all of which have been closed.

V. FINDINGS AND RECOMMENDATIONS

A. Project Goals

A current Project Appraisal Report (PAR) for the project, due annually, has not yet been prepared and issued. The latest PAR, dated October 15, 1970, indicates that the project is on schedule except for construction of certain facilities at Salakham. We note, however, that the project is also behind schedule in the degree-training of participants.

AID Manual Circular No. 1026.1, Para. V, and previous Manual Order No. 1026.1 require the annual evaluation of non-capital projects and the preparation of PAR forms. There have been three PARs prepared for this project and a fourth PAR is currently in process of preparation. PAR dates are as follows:

<u>PAR No.</u>	<u>As of Date</u>	<u>Submission Date</u>
Initial	March 1, 1969	May 2, 1969
Second	December 1, 1969	December 29, 1969
Third	October 15, 1970	December 23, 1970
Fourth	October 15, 1971	February 15, 1972*

\* Estimated date based on discussion with Chief, Evaluation & Program Management Division.

A target of the project is to produce 66 degree-trained participants by FY 1979 to work for the RLG/AGR/CS. To date, 17 participants were sent to Thailand for degree training. Of these, only 2 have completed training and are currently working for the RLG. Nine are still in training and 6 have dropped out. No participants have been enrolled since October, 1969.

The status of degree training of participants as of December 31, 1971 is as follows:

<u>Calendar</u> <u>Year</u> <u>Enrolled</u>	<u>Completed</u> <u>Training</u>	<u>Still in</u> <u>Training</u>	<u>Drop</u> <u>Outs</u>	<u>Total</u>
1967	2	2	3	7
1968	-	5	2	7
1969	-	2	1	3
1970	-	-	-	-
1971	-	-	-	-
	<u>2</u>	<u>9</u>	<u>6</u>	<u>17</u>

As of December 31, 1971, the project had been in process for 8-1/2 years. The latest PAR shows the planned completion date to be in FY 1979. In order for the target of 66 degree-trained participants to be reached, assuming four years for training and a drop-out rate of 33%, we estimate that it would be necessary to enroll an average of 19 students per year during each of the next 4 years.

Recommendation No. 1

We recommend that USAID/Laos complete the PAR in process for this project and in this connection review the 1979 targets for Participant Training in relation to project and sector goals and establish realistic targets with annual checkpoints for monitoring progress.

B. Research and Training Statistics

There is a need to develop and maintain adequate statistics for evaluation of project accomplishments and future planning. We have observed that there are scattered records of crop experimentation and in-service training in some but not all of the various places visited by us, and no complete record to support statistics reported in the PAR of October 15, 1970.

In discussing our findings with the Chief of USAID/AGR/CS, he advised that lack of statistics is the weakest area of the project. The problem was recognized as early as 1968. He informed us that in FY 1969 he had sent a participant to learn the science of statistics in Thailand, but the trainee developed personal financial problems while in training and returned to Vientiane after only six months, refusing to go back to continue the training. The Chief of USAID/AGR/CS further advised that he planned to encourage the Director of RLG/AGR/CS to hire a trained statistician to work for the project starting CY 1972.

Inasmuch as crop improvement research produces rather inconclusive results without accurate statistical data, we suggest that prompt action be taken to establish a comprehensive statistical record and reporting system.

#### Recommendation No. 2

We recommend that USAID/Laos take action to ensure that a comprehensive statistical record and reporting system is established and maintained for the project for both research testing and training functions.

(The USAID advised that corrective action as recommended above has been initiated.) ✓

#### C. Returned Participants

Participants who drop out of training, through either failure or resignation, generally do not go to work for the RLG. This loss of partially-trained personnel is costly to both USAID and the RLG in terms of monies expended for training and because of the shortage within RLG of skilled personnel.

Analysis of 90 returned participants disclosed that 7 failed to complete the courses:

	<u>Returned Participants</u>	<u>Drop-Outs</u>	
		<u>Number</u>	<u>% to Total</u>
Degree Trainees (Thailand)	8	6	75%
Non-Degree Trainees	<u>82</u>	<u>1</u>	1%
	<u>90</u>	<u>7</u>	

Six of the above seven drop-outs are not working for the RLG. Three of the six had accumulated three or more years of training each, as follows:

<u>Degree Trainee</u>	<u>Years of Training</u>	<u>USAID Trng Costs</u>
Homsak Chaleunsinh	3.5	\$ 4,055
Ounkham Souvannathavong	3.0	3,264
Boun Luangraj	3.3	<u>2,944</u>
		<u>\$10,263</u>

Five of the six degree trainee drop-outs, including the three mentioned above who dropped out after completing three years of training, were not employees of the RLG prior to entering the training. Neither the RLG nor USAID has encouraged or required such personnel to be employed in the Bureau. A contributing factor to drop-outs may be the low wage scale paid by the RLG as compared to the private sector wage scale which may be up to three times as great in some cases.

The problem of participants who drop out of project programs and do not go to work for the RLG

was encountered in other Technical Assistance projects. Our review of two Mission sectors (Education and Agriculture) consisting of 10 subactivities disclosed that approximately 2% of the returned trainees (degree and non-degree) representing 4% of the total cost of participant programs, or \$35,688, was lost in these two sectors alone. At this rate, the Mission-wide cost of drop-outs would have exceeded \$100,000, since 1955, not including the portion of salaries and allowances paid by the RLG and the efforts of USAID and RLG personnel in processing such trainees. While we realize that employment of some drop-outs may be undesirable, we believe that appropriate actions should be taken by USAID and RLG to minimize the loss.

In reply to our draft report, the Mission advised that, effective in FY 1972, the Crops and Soil Project Manager will no longer accept participants from outside RLG for training. This may or may not tend to minimize the participant drop-out problem, since we note that drop-outs in our test of the Agriculture and Education Sectors were RLG employees prior to entering training.

### Recommendation No. 3

We recommend that the USAID, in consultation with appropriate agencies of the RLG, carefully analyze the circumstances resulting in drop-outs from participant training programs, including the three participants from the Crops and Soils program who had completed three or more years of training each, and justify on an individual basis those who are not employed or reemployed by the RLG.

### D. Commodity Control and Utilization

We noted that RLG/AGR/CS non-maintenance of property control records and non-utilization of equipment were areas requiring attention, as follows:

1. In reviewing property control records, we noted that USAID/AGR/CS maintained records for larger

vehicles and motorcycles which constituted the bulk of equipment items of the project, but neither RLG nor USAID was maintaining records of other non-expendable commodities such as generators, water pumps, calculators, projectors, microscope, and soil lab equipment.

2. We selected from the project 141 items of major non-expendable equipment valued at \$197,652, representing 55% of the \$360,733 AID dollar-financed equipment items in-country as of June 30, 1971, for physical end-use inspections at Salakham and Hat Dok Keo stations in Vientiane, and other stations in Luang Prabang, Sayaboury, Pakse and Savannakhet. We noted that one pick-up truck and fourteen Yamaha motorcycles (\$6,819) that arrived in 1967 were in unrepairable condition and required appropriate disposal actions to be taken by USAID/AGR/CS. Six larger vehicles and one motorcycle (\$21,975) were in need of repairs or parts. One tractor and forty-five items of farm equipment (\$19,133) had not been utilized since arrival in country one to two years ago. Seventy items, including 13 larger vehicles, 38 motorcycles and 19 other equipment items had no AID emblem affixed or, if affixed, it was defaced. In addition to the above, we could not locate two vehicles which arrived in 1965 and twenty other items of equipment procured during the period FY 1967 to FY 1970 with a total value of \$11,766. Lists containing details and descriptions of the above cited items were furnished to USAID/AGR/CS to take appropriate corrective actions.

3. On January 16, 1971, the project purchased locally from Agriculture Development Organization (ADO), a USAID/Laos-RLG joint sponsored agency, 104 pieces of farm equipment for use in the USAID/AGR/CS farm mechanization program. The equipment cost K18,484,500 (equivalent to \$77,018.75 at the official exchange rate of K240=\$1) and ADO was paid in advance in full from the RLG Trust Fund on March 16, 1971. ADO made delivery of the equipment to six designated stations during April

and May, 1971, but deliveries to Salakham station were short 3 Iseki Model KL 900 tractors valued in total at K1.005 million (or \$4,187.50 equivalent). USAID/AGR/CS informed ADO of the short delivery on September 29, 1971, and ADO informed USAID that it would make the necessary credit. As of January 7, 1972, USAID/Office of Finance had not received notice of a credit from ADO.

#### Recommendation No. 4

We recommend that USAID/Laos take appropriate action to a) assist the RLG/AGR/CS in establishing and maintaining adequate property control records for non-expendable property including larger vehicles and motorcycles; b) appropriately locate, dispose of, provide repair parts, put to use and/or affix (or justify and record its decision not to affix) AID emblems to equipment as detailed in lists provided by the auditors; and c) obtain from ADO replacement of or refund for the three short-delivered tractors.

#### E. Soil Laboratory

The delay in the construction of a soils laboratory, to be paid by UKG contributions, has affected the timeframe for USAID/AGR/CS equipment and personnel training inputs.

Except for the USAID/AGR directly-operated soils laboratory, situated in USAID/Laos compound, which provides backstop support to all AGR activities, there is no other soils laboratory in the RLG/AGR sector at this date. One of the activity targets of the project was establishment of a central Plant Protection and Soils Laboratory at the Salakham station with the UKG contribution to be used for building construction and equipment to be furnished by USAID. When we visited Salakham on October 7, 1971, the building was about 50% completed. We were informed by the Chief of USAID/AGR/CS that the understanding between USAID and the UKG for the establishment of the laboratory was reached in FY 1968. We note, however, that the UKG was slow in allocating the funds and final UKG approval was not given until FY 1970. Actual construction of the lab was started in FY 1971.

As a result of the delay, lab equipment and supplies valued at \$7,231 that arrived during June, 1968 and February, 1969 could not be put to use at Salakham. Lab equipment worth \$2,491 had to be installed for temporary usage in the USAID/AGR soil lab. One calculator and one air compressor (\$802) were reassigned for use at the RLG/AGR Bureau of Agricultural Research and at Hat Dok Keo station respectively. Most of the \$3,938 of glassware, materials and supplies procured for the lab are still at the USAID warehouse. Four participants who completed one year of soils lab training in Thailand and returned during 1969 and 1970 had to be reassigned to do experimental and extension work at Tha Ngone and in Vientiane and in one case reassigned to further training in the Philippines. Total training costs of the participants was \$6,403, not including RLG salaries and allowances while training and thereafter.

In discussing the finding with the Chief of USAID/AGR/CS, we were advised that construction of the soils lab which is now in process at Salakham could be expected to be completed by the UKG early in 1972. The equipment and supplies would eventually be moved to the new lab and arrangements would be made with the Director, RLG/AGR/CS, to reassign the trained participants to the soil laboratory.

Since the USAID is fully aware of the situation, and the USAID and the RLG have taken appropriate action to the extent possible to utilize the equipment and the services of the participants, a recommendation is not warranted at this time.

AGRICULTURE DEVELOPMENT PROJECT  
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EXHIBIT I  
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SUMMARY OF OBLIGATIONS & EXPENDITURES  
July 1, 1963 (inception) to June 30, 1971

<u>Dollar:</u>	<u>Obligations</u>	<u>Expenditures</u>
Personnel Services	\$ 557,327	\$ 549,618
Personnel Services - Contract	23,961	23,739
Participants	211,020	187,919
Commodities <u>1/</u>	975,041	888,370
Other Costs <u>2/</u>	30,114	23,240
Other Costs - Contract <u>3/</u>	39,735	36,735
Total Dollar Costs	<u>\$ 1,837,198</u>	<u>\$ 1,709,621</u>
<u>Local Currency:</u>		
<u>U.S.-owned:</u>		
Personnel Services - Contract	₭ 2,431,678	₭ 2,249,383
Commodities	2,205,974	2,137,039
Other Costs <u>4/</u>	30,774,501	27,758,040
Sub-Total	<u>₭ 35,412,153</u>	<u>₭ 32,144,462</u>
<u>Counterpart Fund: <u>5/</u></u>		
Personnel Services - Contract	₭ 54,331,763	₭ 54,331,763
Commodities	4,935,885	4,935,885
Other Costs <u>4/</u>	21,925,337	21,925,337
Sub-Total	<u>₭ 81,192,985</u>	<u>₭ 81,192,985</u>
<u>Trust Fund:</u>		
Commodities <u>6/</u>	₭ 18,484,500	₭ 18,484,500
Other Costs <u>7/</u>	31,094,893	31,094,893
Sub-Total	<u>₭ 49,579,393</u>	<u>₭ 49,579,393</u>
Total Local Currency Costs	<u>₭166,184,531</u>	<u>₭162,916,840</u>
Dollar Equivalent (₭240=\$1)	<u>\$ 692,436</u>	<u>\$ 678,820</u>
Total U.S. Dollars and Lao Kip (Dollar Equivalent)	<u>\$ 2,529,634</u>	<u>\$ 2,388,441</u>

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EXHIBIT I  
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NOTES:

- 1/ Obligations of \$360,733 were for equipment items; the remainder was spent for vegetable seeds, insecticides, fertilizers, spare parts, petroleum products (POL) and minor supplies.
- 2/ Local travel, vehicles and equipment maintenance, repairs and other operation costs.
- 3/ Transportation of project commodities Bangkok/Vientiane.
- 4/ Vehicles and equipment repairs, construction of facilities, in-service training and per diem of RLG personnel.
- 5/ Counterpart Funding was not used after 1970.
- 6/ Cost of 104 pieces of farm equipment purchased from Agriculture Development Organization (ADO) in 1971.
- 7/ Funded from FY 1964 to FY 1966.

AGRICULTURE DEVELOPMENT PROJECT  
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SCHEDULE I

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