

May 2, 1973

To : Dr. Lucius A. Butler, Chief of Party  
University of Hawaii Contract Team

From : *John W. Rantala*  
John W. Rantala, Proc. & Logistics Officer  
University of Hawaii Contract Team

Subject: Monthly Report, April 1973

I. Maintenance of the Fa Ngum Schools:

The wishful statement is often made that the RIG Ministry of Education should be given greater responsibility in the maintenance of Fa Ngum School facilities and instructional equipment. No one questions the desirability of such action. To suggest it, however, is to assume or imply that the Ministry of Education has the following logistics capabilities:

1. Adequate school maintenance budget
2. Skilled tradesmen/technicians to assign to maintenance problems
3. Maintenance and repair parts warehouse, inventory, and stock record keeping system
4. Communications system to report breakdowns from the field
5. Transportation system to deliver parts materials and labor to the scene of breakdown.

The UH and USAID are presently providing maintenance services to the five Fa Ngum schools through the cooperative assistance of seven USAID Divisions (SMD, PWD, TRP, FWR, RFWD, MTS and MTE.)\*

The present concept of Fa Ngum School maintenance is dependent upon Americans working the USAID logistics support system through all its aspects (financing, procuring, receiving, delivering and installing of repair parts). Whenever facilities or equipment such as tractors, water pumps, generators, sewage and water lines, transformers, agricultural and shop equipment require extensive repair maintenance, the UH Team and some division branch or section of USAID provides the maintenance service.

\*FHWA, OICC and RIG/TP have also rendered maintenance assistance.

The present practice of using the USAID maintenance capability has resulted in keeping the Fa Ngum Schools in excellent operating condition. It has, at the same time, however, sheltered the MOE from the fact that the maintenance of the Fa Ngum Schools is a costly and complex problem of secondary school administration. This is not to suggest that USAID should cease to work with the UH in providing maintenance services to the Fa Ngum Schools. I would like to suggest, however, that the MOE be requested to appoint a counterpart to Mr. Thomas Liston, the USAID National School Maintenance Advisor. I would like further to suggest that NO repair maintenance be provided to the Fa Ngum Schools unless it has come through Mr. Liston's counterpart, as a request from the Lao Director of the School in need. The Counterpart would then call upon RIG maintenance capabilities to the extent possible before requesting USAID repair maintenance assistance through Mr. Liston.

No USAID repair maintenance assistance should be provided to the Fa Ngum Schools that has not been requested of Mr. Liston by his counterpart.

Whenever possible USAID repair maintenance assistance should be limited to the providing of only parts and materials procured by 203s and 283s initiated by the counterpart and countersigned by Mr. Liston.

The implementation of this suggestion for introducing Fa Ngum School maintenance responsibilities into the Ministry of Education will undoubtedly slow down the delivery of maintenance services to the Fa Ngum Schools. It will begin, however, to place Fa Ngum School maintenance responsibilities where they must ultimately go.

The transfer of responsibility will be slow and somewhat frustrating to both Lao and Americans associated with the problem. It is easy to write that "Mr. Liston should not request skilled USAID manpower assistance for Fa Ngum School maintenance. The MOE and the Lao must learn to do it for themselves". To make such a hard and fast rule at this stage of the game would and repeatedly bring the Fa Ngum school programs to a halt. Common sense would have to prevail. If there is no RIG skilled manpower to repair an essential service, such as electrical power, a broken pump, a tractor breakdown, etc., Mr. Liston should have the prerogative of requesting USAID skilled manpower assistance.

The continued operation of the Fa Ngum School program should not be frustrated by forcing a maintenance problem on the MOE that they cannot handle at the present time. The present maintenance capability of the MOE is very limited. No one in the MOE has any knowledge of what this maintenance capability should be in terms of budget, manpower, facilities, and a system. It appears to us of the UH team that the MOE does not have access, on a regular work order basis, to the maintenance capabilities of other RIG agencies.

This report is an attempt to tell how Fa Ngum School maintenance\*\* is presently provided for. I further try to suggest how the problem of Fa Ngum School maintenance might be introduced into the administrative structure and responsibility of the MOE. It is only logical that the MOE must first gain an appreciation of what the nature and scope of the Fa Ngum maintenance problem is before they can begin to devise ways and means of handling it.

Steps have been taken to provide the MOE with the financial capability for some Fa Ngum School maintenance. 1,000,000 kip have been provided by the MOE for tool and equipment maintenance under Activity Plan SE-3-007, National School Supply System. The expectation is that this fund will enable the MOE to buy maintenance services from repair shops of the market.

The present limited use of this avenue of maintenance services to the Fa Ngum Schools has proven successful on selected jobs where the necessary repair parts and technician skills were known to exist in the market. More maintenance can be done through this avenue if additional maintenance funds are made available to the MOE and people knowledge in maintenance are employed by the MOE to implement and operate the system.

## II. Secondary Education Advisor Relationship to Fa Ngum School Maintenance

Soon after Francis K.C. Wong was assigned as SEA to the Fa Ngum School in Savannakhet, he expressed amazement that his job was, in fact, 90% involved with the maintenance and the day-to-day problems of operating the school's physical facilities, and only 10% involved with curriculum implementation. A study of the past three months of all SEA reports bears out the fact that this statement is essentially true.

As stated before, the present maintenance in Fa Ngum Schools is excellent. It is our opinion, however, that the phasing out of the SEA at each Fa Ngum School will create a problem in the area of school maintenance that has not yet been satisfactorily resolved in terms of projected planning between the UH, USAID and the MOE. I would like to suggest that we get together in a meeting of MOE people, UH Secondary Education advisors, USAID National Maintenance Advisor, UH Chief of Party and UH Procurement & Logistics Officer.

\*\* Please note: I differentiate between preventative maintenance and major repair maintenance. Such tasks as janitorial services, campus cleanup, painting, shop cleanliness and minor repairs of lights, door locks, replacement of broken windows, lubrication and adjustment of instructional equipment, etc. should be handled internally within the school.

### III. Fa Ngum School Vientiane

#### A. Water

The new well tested on 24 April 1973 indicated a yield of 254 liters per minute (approx 65 gals/min). The water unfortunately tested out as having 1350 parts of salt per million of parts water. Mr. Fittro and Mr. Fry of PWD/water have suggested that the well be capped and tested again in the later part of the rainy season. There is some hope that the salt content will drop to an acceptable level.

#### B. Water Storage Tank

Messrs. Carlson, Blake, Liston and Rantala met on May 3, 1973 to discuss the construction of a 20,000 gallon ground level water storage tank at Fa Ngum Vientiane.

Facilities are now on hand to make the check on the quantity of water Nam Pa Pa delivers to the Fa Ngum School per 24 hours. Mr. Carlson will request Mr. Howard Lewin to make the study at his earliest convenience. It will be a simple matter to check the amount of water delivered by the #1 well at Fa Ngum. The total yield balanced against average consumption per school day and consideration of expected accumulation of water on non school days should give an indication of whether the planned size of tank is within the range of the water available.

#### C. Home Economics Lab Practise Cottage

Dorothy Heieie reports that the tasks left for the Industrial Arts Department to carry out are proving difficult to complete as there is a seeming reluctance on the part of Industrial Arts Teachers to follow through on projects. It is, however, from the construction and practical on the job learning point of view a successful project.

The poor quality of lumber that PWD allowed to be delivered by the contract supplier is painfully apparent in the building. This is in spite of the fact that numerous rejections and complaints were made. Lumber standards are apparently very loose in Laos and competitive bidding tends to bring cheap poor quality materials into the picture.

#### D. Fish Pond

The agricultural students and instructors have started the fish pond lining under the supervision of Mr. Blake. The gamble of having sufficient water for replacement of the evaporation and refreshment of the water is dependent upon having a ground storage tank for accumulation of water and the availability of the new well water.

## E. Student Summer Work Projects

The request of Chief of Party and Chief of Education to have all project proposals submitted in AP form has been discussed with the SEAs. The subsequent word from Mr. Green that the APs be submitted ASAP has been communicated. IVS student summer work applications are being processed by school directors.

## F. Curriculum Center

Sources of aluminum roofing have been located in Saigon and in country field warehouses of SMD. Expectations are that the present construction delay will be ended soon. The possible change orders for a sidewalk on the back side of the building and contractor construction of the leaching ditch from the present leaching well are to be discussed with OICC & PWD on 5/3/73. The plan to use Sam Thong students to dig the leaching ditch on a rice compensation basis had to be abandoned because the students did not accept the proposition.

Fa Ngum School Phnom Hong

A. The leather washers for the Dempster pump were changed by FWD well drilling team. There is now a better supply of water for the washers were well worn out.

B. Mr. Zane and Industrial Arts teachers replaced 8 broken window panes which happened during the bounce. Many of the loose door hinges were tightened by the industrial arts students.

C. The agriculture students are beginning to plant grass on the slopes of the reservoir. This will prevent soil erosion.

D. Teachers and staff repaired cleaned and adjusted the duplicating machine. Mr. Bouneleum has acquired maintenance skills for this machine under the supervision of Mr. Zane.

E. The use of school facilities by outside groups is and will be more of a problem in the future unless the MOE and the Directors set up guide lines for the use of school facilities. For example:

On April 7, a party was given by General Thonlit Chokbengboun and the Thong Nam Ngum Association for the villagers. The Home Economics facilities were used. After the party, Mr. Noupit informed me that the following items were missing:

- 20 plastic bowls
- 35 coffee cups
- 10 plates
- 1 oval serving plates
- 5 butcher knives
- 9 paring knives
- 2 soup spoons

Mr. Khinthavone, student teacher from Dong Dok was responsible for this affair. Mr. Noupit and Mr. Zane saw him on April 27 at Dong Dok to discuss this matter. He has assured Mr. Noupit that the Thong Nam Ngum Association will pay for the missing items. One can only speculate on when and if the items will be paid for.

F. The maintenance of the tractor is a constant problem. It seems that the teachers do not care what happens to the tractor until something goes wrong. Recently, upon inspection, it was found that the radiator core was almost solidly packed with dust and dirt. This condition caused the tractor to heat up excessively which caused other problems. The number 3 cylinder is not working and upon inspection found that the connecting rod is bent because water entered the cylinder through the gasket which was blown because of excessive heat. This problem calls for a major over haul of the tractor. Parts will have to be purchased and a qualified Diesel mechanic to work on tractor. It is highly recommended that this tractor be brought back to Vientiane for repair.

SEAs and agricultural instructors are being specifically cautioned on checking water levels in tractor radiators, removing dust accumulations from radiator cores and changing oil filters greasing and etc as called for in the Lao translation of the John Deere Tractor Operation Manual.

#### Fa Ngum School Luang Prabang

A. Saran Greenhouse. The agriculture students did an excellent job of installing the saran material for the greenhouse in less than two class periods.

B. AP on School Improvement

An activity proposal for the 1973 summer work program was prepared and is being circulated for the required signatures in LP. It will be forwarded to EDU/VTE through AD/FO as this is the procedure established for routing of all APs originating from the field. The AP calls for twelve students and two supervisors to perform a variety of tasks including some corrective work on facilities, new constructions, landscaping and farm project development.

C. Construction

Phase I Final Inspection. A final inspection conducted by ROICC and the Project Manager on 14 July 1972 did not include inspection of the electrical and plumbing installations. Since service connection was made by EDL in December 1972, the electrical work was inspected on two occasions by the OICC Elec. Inspector. As soon as running water is available in the buildings, an inspection of the water, drainage and gas lines will be scheduled with OICC, PWD and EDU participating. A preliminary check made on the 28th showed some major deficiencies in both the water and drainage lines in the science building. The Phase I contractor should be recalled to make the repairs as the one-year warranty has not yet expired.

Phase II "Deficiency" List. A second pre-final inspection of the shop, 2-story classroom and the farm annex buildings was made on the 4th and most of the deficiencies noted were corrected by month end. OICC/LP and the contractor have agreed to request for a final inspection for the original Phase II contract in early May.

Amendment II. By month end, the contractor had the rafters secured in place and were laying the purlines on the classroom building. For the auditorium the scaffolds have been erected for raising the rafters which are being fabricated along side the structure.

Driveway. The driveway for the villagers was completed with the contractor laying the culvert pipes and with a TP/LP equipment doing the excavation and grading work.

D. Irrigation System

The irrigation system, installed by PWD/LP as reported last month, is operating flawlessly, and the school staff headed by Director Wath and Mr. Tanh, bursar, are carefully learning its operation and maintenance requirements. It is estimated that the 10 HP electric pump is delivering approx. 1000 GPM into the storage tank located 700 meters away and working against a head of at least 14 meters from the Nam Dong River.

Fa Ngum School Pakse

A. The detailed report of Mr. Louis L. Fittro to Mr. Lee Gibson April 27, 1973 confirms the feasibility of taking untreated water from the Nam Pa Pa filtration plant. The initial work of installing the 1 1/2" to 1" tee and 1/4" check valve is a task that is to be done by Nam Pa Pa engineers and skilled labor. Mr. Fittro will visit the Nam Pa Pa office in Vientiane on May 4, 1973 to establish the whether Nam Pa Pa has available the necessary parts, or will order them, and whether they can bill USAID for the installation as a service charge.

Mr. Fittro will also check on whether Nam Pa Pa will order the 3" water meter required for the potable water hook up or whether USAID is to provide the meter.

B. The bids for Fa Ngum Pakse construction will be opened on Friday May 11, 1973. Mr. Redmond cautions that unless the contractor can almost immediately proceed with the foundations for the buildings, they will be caught in the rainy season and it would be doubtful if the buildings would be ready for occupancy by October 1973.

Mr. Downally cautioned that the contract cannot be let unless the arrangement for potable and irrigation water has been finalized with Nam Pa Pa. Every effort is being made to do this.

EDU/UHT:W.Santala:kk

Fa Ngum School Savannakhet

A. Water Drainage Ditch

The concrete lined drainage ditch on the road side of the campus may require some self-help measures to slow the torrent of water that will flow in the rainy season.

B. The concrete basket ball standards have not yet been constructed. Contractor claims he does not have plans, sand and gravel. OICC requested to follow up.

C. An IVS Summer Student Work Experience project to build 2 bicycle racks is being submitted.

D. The irrigation lines and water delivery line from well #2 to tower have been completed.

E. The small storage tank (approx. 4000 gallons) at well #2 has been completed.

Problem

FWD does not have a qualified crane operator in Savannakhet to erect the power poles. The long delay on this logistic support is threatening to disrupt the entire power line installation project. The problem was reviewed with Mr. Rosal of FWD on May 3, 1973. It appears that there is a lack of communication and decision to act between FWD Savannakhet and Vientiane. Mr. Gus Carlson has been requested to look into the matter.