

OFFICE MEMORANDUM

March 9, 1972

TO : Mr. Norman Green, Chief, Education Division
FROM : Lucius Butler, ~~Chief of Party~~ University of Hawaii Team
SUBJECT: February Monthly Report for Secondary Education

Problems

1. Water requirements for Fa Ngum Schools

Water supply is one of several logistic concerns at each of the Fa Ngum project schools. The supply is barely adequate at some schools and totally inadequate at other schools. Water needs may be divided into three separate but related uses. Potable water for drinking is of first concern. Closely related is water for sanitation based upon the type of toilet facilities. A third use of water is for irrigation of the agriculture plots used in the instructional programs.

The use of well water requires electrical power and the ordering of a pump must await power availability and knowledge of the well capacity in terms of gallons-per-minute (GPM) in order to write pump specifications.

A. Vientiane School Water .. We have a well for water at Fa Ngum Vientiane as well as city water. The well has served much of the needs and city water has supplemented the well water until recently.

(1) The well water salt content occasionally reaches the level of being distasteful. City water will have to be used more extensively if we are to have increased enrollment each year.

(2) The pump at the well, installed under OICC contract, has functioned very well for the past 18 months. Repair of a serious electrical short had been requested of PWD-OICC about a month ago, but as yet no action has been taken.

It appears that a ground-level concrete water cistern needs to be constructed at the base of the water tower to collect city water during the night and early morning, to be pumped into the tanks at the top of the water tower in order to stop excessive use of well water to the point of brackish water.

The presence of the refugee Sam Thong "college" junior high school on the campus, not only adds 120 students for instructional facilities, but their kitchen, shower room and two dormitories are connected to the school water system. This is a heavy drain on the school water resources.

B. Phone Hong School Water - We have a well for water at Fa Ngum Phone Hong which produces 16 gallons per minute (GPM) and has been able to provide enough water for drinking and sanitary purposes for the 372 students and 40 staff. This water supply also services the director's house and four faculty units. Extreme conservation measures have been rigidly enforced to make this minimum water supply stretch over the present needs.

(1) Student enrollment will increase to over 500 with 50 teachers and eight faculty living units. The present well will not be adequate to supply this increased requirement.

(2) There is no water for use by the agriculture instructional program or campus beautification at this time. Previous efforts for a catch basin and spillway were frustrated by a loosely written contract which permitted the contractor, under protest of the project manager, to collect his money without completing the job which was requested by OICC as Phase III, Phonesavang Fa Ngum School. Memos have been written in an effort to correct this situation, but to date no action has been taken.

(3) A feasibility study has just been completed which may provide a solution to the complete

lack of water for the agricultural instructional program. This study was based upon the possibility that a pipe line could be constructed to bring water from the Nam Ngum River approximately three kilometers to the Fa Ngum school site. It appears that sufficient 12-inch spiral pipe may be available as well as a pump. If PWD could supply the needed labor, the Fa Ngum School could have required water for a complete agricultural instructional program.

This proposal appears to be the only long-range solution to the agricultural water needs for Fa Ngum Phne Hong. It also has the potential of serving the local community irrigation needs on an overflow basis or utilizing additional water storage facilities.

C. Savannakhet School Water - We have two wells for water at Fa Ngum Savannakhet. The first well was drilled near the water tower and has a yield of 25 gallons per minute (GPM). At present a temporary generator supplies power for a temporary pump, on loan from USAID irrigation to meet the minimum potable and sanitation needs of 211 students and the teachers and staff of the school. This temporary pump is mechanically overloaded but frequent replacement of the drive V-belts has made it possible to carry on while a 220 volt, 1-phase, 1 1/2 horsepower pump capable of pumping 17.5 gallons per minute. Delay in securing this permanent pump through OICC was caused by the Bangkok BUSH contractor ordering the pump from the USA. The pump has now arrived and has been sent to Savannakhet.

A second well was drilled near the agriculture development area which indicates a high GPM yield. Information as to pump specifications for this well have been requested.

A related problem is the lengthy delay in securing electric poles for Savannakhet which are prerequisite to securing EDL Lao electrical power. The present temporary generator

power supply does not match the power requirements of the pump because the pump was ordered to meet eventual EDL Lao power supply.

Water for agriculture instructional purposes have been also planned in terms of a reservoir which has now been completed. Water seepage tests indicate a low level of seepage which give promise of providing some of the agricultural water requirements for the next school year.

D. Luang Prabang School Water. The third attempt at a well for Fa Ngum Luang Prabang is in the process of being drilled at present. Water has been reached in sandy-gravel soil and the well should go about 36 meters. When the yield of this well, located near the home economics-agriculture building, has been estimated, pump and pressure/storage tank specifications can be determined and ordered. It is expected that this well can provide sufficient water for potable drinking and sanitation requirements. City water is due in the area in about two years, which may be in time to take over these water needs by the time the student and teacher population have exceeded the well output of water.

Agricultural instructional water supply at Fa Ngum Luang Prabang has been under study since the 1971 flood indicated the Gabion-type dam on the Nam Pa River would not be a source of sufficient water due to heavy contamination and silt of this river and probable maintenance problems which would result. A proposal by Mr. H. Rinnan, Area Engineer, Agriculture/Irrigation, would utilize the Hale 30TA Series pump now on hand in a rock-curbed well located streamside on the Man Dong River which touches the school property close to the Science building.

The water can be pumped to the existing water storage tank using the existing 6" water pipe which is located about 50 meters from the proposed rock-curbed well. It appears that this proposal would provide a long-range solution to agricultural water needs and change orders are being prepared to implement the proposal.

Progress of Activities

A. Improved Lao Kitchen, Vientiane School

The activity plan for an improved Lao kitchen AP SE 2011 was approved on February 7, 1972, APP. No. 2266, and has been implemented under the industrial arts division at the school with general oversight being given by advisor William Rankin.

B. Library Development

Advisor Iwao Kumabe has been working with the Vientiane school librarian Mr. May Chantla in re-organizing the book supply program for all schools with gifts from USIS, Asia Foundation, and the Lao National Library.

C. English Seminar

A meeting of all Fa Ngum school teachers of English as a Foreign Language (TEFL) was held at the close of the Lao National English Seminar (February 7-9) with Advisor Jane Fultz. Problems are being solved and leadership by David Brindley has resulted in stability and continuity in the developing curriculum.

D. Career Ladder Training Program

Home economics teachers career ladder advanced training possibilities have been reviewed by advisor Dorothy Heieie and HRDD/PT Mrs. Ruth LeBert. It is hoped that Miss Lasoy will be able to attend a teacher's college in Thailand for two years to earn a teaching certificate.

E. Phone Hong Science Evaluation

Advisor Francis Wong spent February 22-25 at Fa Ngum, Phone Hong, evaluating the math and science program. He was impressed with the ability and enthusiasm of the science teachers at the school.

F. Construction Progress

Each field advisor reports a slowing down of construction activity during the month for a variety of reasons. Of particular concern is the contract in Savannakhet.

G. Cleaning-Maintenance Experiment

Advisor Ah Chong Zane has developed a janitor's specific work assignment schedule in conjunction with the Phone Hong school director to aid in cleaning and maintaining the school facilities. This experimental program will be enlarged and expanded during the remainder of this school year as the first phases are fully implemented.

H. Materials Production Progress

1. Textbook production efforts have resulted in textbooks for agriculture plant production, grade 9 science, and grade 9 wood-working being sent to Communications Media for printing bids during February. The mechanical drawing book was delivered from the printers, giving us four texts at the printers at this time. (See charts attached)

2. Mimeographed supplementary materials produced during the month include three commercial department units and four agriculture units.

3. The remaining 20% of illustrations for the Home Economics grade 9 text were sent to the RLG Materials Production Center because of lack of adequate talent on our staff.