

WATER AND SANITATION
FOR HEALTH PROJECT



COORDINATION AND
INFORMATION CENTER

Operated by CDM FIVE
for the U.S. Agency
for International Development

1611 N. Kent Street, Room 1002
Arlington, Virginia 22209 USA

Telephone: (703) 243-8200
Telex No. WU164752
Cable Address: WASHAID

PHILIPPINES

HANDPUMP DEVELOPMENT AND WELL CONSTRUCTION IN THE BARANGAY WATER PROGRAM

INTERIM REPORT NO. 1

19 AUGUST 1981

CDM FIVE is operated by
Camp Dresser and McKee
Incorporated; Principal Col-
laborators: Center for Educa-
tional Development in
Health, Boston University;
International Science and
Technology Institute; Re-
search Triangle Institute;
University of North Carolina
at Chapel Hill.

Prepared For:
USAID Mission to the Philippines
Order of Technical Direction No. 40

WATER AND SANITATION
FOR HEALTH PROJECT



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Telephone: (703) 243-8200
Telex No. WUI 64552
Cable Address WASHAID

August 19, 1981

Mr. Anthony Schwarzwald
Director, USAID Mission
Manila, Philippines

Attn: Mr. Charles C. Brady, Chief USAID Engineer

Dear Mr. Schwarzwald:

Attached is Interim Report No. 1 prepared by Mr. Phillip W. Potts and colleagues on their visit to the Philippines between July 5 - 18, 1981. This work was undertaken under WASH Order of Technical Direction No. 40, which was requested by the USAID Mission in the Philippines in Manila Cable 1775 (22 January 1981).

We anticipate several visits to the Philippines in the course of this activity. You will be fully informed of all findings and conclusions as they develop.

Please feel free to contact the WASH office directly if you have any comments or questions on this report.

Sincerely yours,

Dennis Warner

Dennis B. Warner, Ph.D., P.E.
Director, WASH Project

DBW/RS
Enclosure

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Camp Dresser and McKee
Incorporated; Principal Col-
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International Science and
Technology Institute; Re-
search Triangle Institute;
University of North Carolina
at Chapel Hill.

TRIP REPORT

OTD No. 40 (Philippines)
July 5 - July 18, 1981

Submitted By:
Phillip W. Potts
William Larson
P. Alan Pashkevich

Order of Technical Director (OTD) No. 40 has been issued to provide technical assistance to USAID/Philippines, local and national government officials, and foundries and machine shops in establishing in-country capabilities for manufacturing, installing, repairing and maintaining the AID hand-operated water pump. The trip described herein was made to the Philippines to initiate the activities required by OTD No. 40.

Sunday, July 5

Bill Larson, Alan Pashkevich and Phil Potts, Georgia Tech project personnel, left Atlanta for San Francisco on this day via Delta flight 1019. Pan American flight 841 then taken from San Francisco to Manila.

Monday, July 6

En route to Manila via Pan American flight 841 (crossed international date line, advancing to July 7 during flight).

Tuesday, July 7

Larson, Pashkevich and Potts arrived in Manila at approximately 10 am and proceeded to the Silahis Hotel for check-in and rest.

Wednesday, July 8

Met with Charles Brady, USAID capital development officer and Barangay Water Program (BWP) project director, for review of BWP activities. Georgia Tech personnel arranged for field trip on July 9 and 10 to Pangasinan Province in company with BWP and USAID personnel to visit previously installed AID hand pumps shipped from Indonesia. Also arranged for one-day trip to Cebu on July 13 to visit University of San Carlos to observe its hand pump program and possibly provide technical assistance on problems encountered thus far.

Thursday, July 9

Visited Tri-Star Metal Industries and met with Mr. Leong Lam, Executive Vice President, and Rene Galera, Divisional Manager, to discuss production of 250 AID hand

pumps. Set appointment for July 14 to finalize discussions prior to entering order for production. Left in late morning for Pangasinan in USAID vehicle with Oscar Basa, USAID, and Art Rana and Bayani Tolibas, both of BWP. Met in Lingayen, Pangasinan briefly with Roberto Ferrer, Provincial Development Coordinator, and Governor Agnede Agbayani. Visited pump sites in the barangays of San Auselio, Balungao and Balong, Malasiqui, accompanied by Ruben Aquino, Provincial Water Analyst. Both pumps had been installed by Phil Potts over a year and a half ago, were working well, and were serving 1200-1500 and 400-500 people, respectively, in the two barangays. Both pumps were being reasonably well-maintained by the villagers and had leather cups replaced once since installation.

Friday, July 10

Visited a third pump site in the barangay of Luna, Mabini. This pump had been installed in February, 1980 by BWP personnel and was serving approximately 250 to 300 people. The pump was working well but had a leak because of a loose connection between the drop pipe and pump body (Mr. Aquino promised to schedule provincial personnel to repair this pump during the next week).

Also visited a typical Magsaysay pump installation (long wooden handle and cement upperstructure) in Luna, Mabini before returning to Manila.

Saturday, July 11, and Sunday, July 12

No activity

Monday, July 13

Georgia Tech personnel and Oscar Basa, USAID, flew to Cebu and met with Father Van Engelen of the University of San Carlos to discuss his hand pump program which is financed through the Asia Foundation by AID. Father Van Engelen presented several of his PVC cylinders that had failed and it was noted that some of his problems were caused by not using a proper PVC cement as well as using poor quality PVC pipe.

Visited Father Rettore at the Don Bosco Vocational School and observed his machine shop (where Father Van Engelen's cylinders are made), then went to see one of the University of San Carlos' typical hand pump installations serving a village on Mactan Island (site of the Cebu airport).

Returned to Manila.

Tuesday, July 14

Met with Charles Brady and others at USAID prior to going out to the Tri Star foundry to discuss final arrangements for entering an order for the manufacture of 250 AID hand pumps. Set July 15 P.M. as the time for contract execution. Visited Neltex Plastics (near Tri Star in Las Pinas) with Rene Galera of Tri Star to discuss internal smoothness of PVC pipe and to get technical information for Father Van Engelen on PVC cement and Neltex distributors in Cebu. While at Neltex Mr. J.C. Tankan, Operations Director, gave assurance that Neltex PVC water pipe was of sufficiently high quality for use as a pump cylinder and/or cylinder liner (random samples from the production department verified this).

Wednesday, July 15

Met with Charles Brady at USAID where we were informed that the decision was now that we should manufacture 125 shallow-well pumps for distribution by BWP, 125 deep-well pumps (with two inch cylinders) for installation by BWP, and 400 additional two-inch cylinders for spares. Because Alan (Pashkevich) will have a considerable amount of free time until the first of the test pumps are ready it was agreed that he would use this initial slack period to survey and assess present well drilling and development methods and begin preparation of the installation/maintenance/repair manual for the AID hand pump.

A courtesy call was made on Minister Alfredo L. Junio, who introduced his Director of the Bureau of Water Supply, Jose Espiritu, and suggested that we maintain close liaison with Director Espiritu and his staff.

The day ended by signing a contract with Rene Galera of Tri Star for the first 125 shallow-well pumps at a unit price of \$97.44 (760 pesos at an exchange rate of 7.80/\$1.00). An order for the 125 deep-well pumps will be placed approximately one week later. It is expected that the 400 two-inch cylinders can be ordered in the near future after a market survey is conducted on cylinder parts and materials.

Thursday, July 16

Potts and Larson departed Manila while Pashkevich remained in Manila. Four cartons of water disinfection equipment were carried to the U.S. as excess baggage per Vic Wehman, AID/Washington, telephone conversation instructions through Charles Brady. Cathay Pacific flight 900 was taken from Manila to Hong Kong (no American airline available), Pan American flight 6 was taken from Hong Kong to San Francisco Friday morning (July 17), and Delta flight 1019 was taken from San Francisco to Atlanta Friday afternoon (U.S. time).

Overall, the trip was very worthwhile and everything seemed to fall into place. There was enthusiasm by USAID/Manila and the Philippine government for the program as well as by the foundry and machine shop, Tri Star. Perhaps the most gratifying experience during the trip was to see rural villagers maintaining the AID hand pumps installed in Pangasinan Province in early 1980, a rare happening. Under the above circumstances the project has moved ahead with unusual speed.

CONTRACT ORDER AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

This Agreement executed by and between:

TRI-STAR METAL INDUSTRIES, INC., a corporation organized under the laws of the Philippines, with office address at CAA Road, Pamplona, Las Pinas, Metro Manila represented by its Plant Manager, RENE B. GALERA, hereinafter referred to as the MANUFACTURER.

- and -

Georgia Institute of Technology, c/o UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT, 1680 Roxas Blvd., Manila, Philippines, hereinafter known as the BUYER, represented by Alan Pashkevich.

WHEREAS, the BUYER hereby agrees to purchase from the MANUFACTURER 125 units cast iron shallow well water pump with certain specifications indicated based on the sample given to the MANUFACTURER.

WHEREAS, the MANUFACTURER hereby agrees to sell the cast iron water pump conforming with the specifications except for the following modifications:

- a. The total weight of the pump should be not less than 75 lbs.
- b. Instead of the all bronze plunger assembly, it will be made of bronze for the upper hub and cast iron for the lower hub.

NOW, THEREFORE, for and in consideration of the foregoing premises, the parties mutually agree that:

1. The price per unit is ₱760.00 FOB factory.
2. The unit price is based on the sample and working drawings furnished by the BUYER based on the above mentioned modifications.



*Agreed with the sample
price of ₱760.00/unit*

CONTRACT ORDER AGREEMENT

3. The BUYER agrees to make a down payment equivalent to 30% of the total contract price within 30 days after signing of this contract.
4. The balance after the down payment will be paid in cash for each delivery.
5. The down payment will be proportionately deducted from each delivery until it is fully applied.
6. The MANUFACTURER undertakes to manufacture and deliver said water pump as follows: a) 5 units on October 15, 1981; b) 35 units on Jan. 1, 1982; c) 50 units on Feb. 1, 1982; and d) 35 units on March 1, 1982.
7. The MANUFACTURER shall allow the BUYER inspection while in production and to conduct tests to ascertain the quality of the water pump to be delivered.
8. Any revisions, changes, alterations, modifications on the specifications of the water pump shall be subject to mutual agreement in writings.
9. In any event of delay in the delivery as specified in Item No. 6, a 1% per day liquidated damages shall be paid by the MANUFACTURER to the BUYER computed against the value of committed delivery.



Force Majeure

The MANUFACTURER shall not be responsible for damages or delay due to acts of God, fortuitous events, government restrictions or orders, war, warlike conditions, hostilities, embargo, revolution, riot, strikes, lockout, epidemic, typhoons, or any other unforeseen circumstances or causes beyond their control.

CONTRACT ORDER AGREEMENT

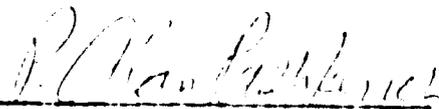
IN WITNESS WHEREOF, the parties hereto have caused this instrument to be signed at Manila, Philippines on this 15 day of July, 1981.

GEORGIA INSTITUTE OF TECHNOLOGY
(Buyer)

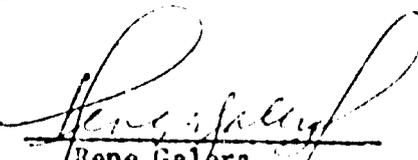
TRI-STAR METAL INDUSTRIES
(Manufacturer)

By:

By:

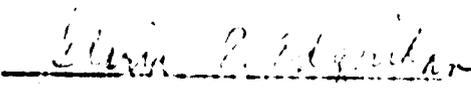


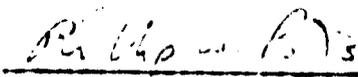
Alan Pashkevich

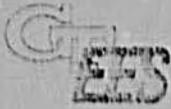


Rene Galera

SIGNED IN THE PRESENCE OF:







Georgia Institute of Technology

ENGINEERING EXPERIMENT STATION

ATLANTA, GEORGIA 30332

August 4, 1981

Dr. Dennis Warner
WASH Project
1611 North Kent Street, Room 1001
Arlington, Virginia 22209

Dear Dennis:

In addition to the OTD NO. 40 report submitted to you with my letter of July 30, please note the enclosed sub-contract for 125 AID deep-well hand pumps to be manufactured by Tri-Star Metal Industries, Inc. (total cost of sub-contract, \$12,179.49). The July 30 report also included a sub-contract to Tri-Star, 125 AID shallow-well hand pumps (total cost of sub-contract, \$12,179.49). We now need to select a sub-contractor to manufacture the deep-well cylinders required by the OTD.

Yours truly,

Phillip W. Potts
Senior Research Scientist
Technology Applications Laboratory

PWP/es

CDM WASH
DATE RECD: 8/10/81
FILE NO.:
ACTION COPY TO: D. Warner
INFORMATION COPIES TO:
ACTION COMPLETED <input type="checkbox"/>
OPEN TO FILE <input type="checkbox"/>
INITIALS

Comp. Systems, Inc.
1000 N. ...

AUG 10 1981

CONTRACT ORDER AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

This Agreement executed by and between:

TRI-STAR METAL INDUSTRIES, INC., a corporation organized under the laws of the Philippines, with office address at CAA Road, Pamplona, Las Pinas, Metro Manila represented by its Plant Manager, RENE B. GALERA, hereinafter referred to as the MANUFACTURER.

- and -

Georgia Institute of Technology, c/o UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT, 1680 Roxas Blvd., Manila, Philippines, represented by Alan Pashkevich, hereinafter known as the BUYER.

WHEREAS, the BUYER hereby agrees to purchase from the MANUFACTURER 125 units cast iron deep well water pump with certain specifications indicated based on the sample given to the MANUFACTURER.

WHEREAS, the MANUFACTURER hereby agrees to sell the cast iron water pump conforming with the specifications except for the following modifications:

- a. The total weight of the pump should be not less than 75 lbs.
- b. Instead of the all bronze plunger assembly, it will be made of bronze for the upper hub and cast iron for the lower hub.

NOW, THEREFORE, for and in consideration of the foregoing promises, the parties mutually agree that:

1. The price per unit is P760.00 FOB factory. *125 units @ P760.00 = P95,000.00*
2. The unit price is based on the sample and working drawings furnished by the BUYER based on the above mentioned modifications.



CONTRACT ORDER AGREEMENT

3. The BUYER agrees to make a down payment equivalent to 30% of the total contract price within 30 days after signing of this contract.
4. The balance after the down payment will be paid in cash for each delivery.
5. The down payment will be proportionately deducted from each delivery until it is fully applied.
6. The MANUFACTURER undertakes to manufacture and deliver said water pump as follows: a) 5 units on October 15, 1981; b) 35 units on Jan. 1, 1982; c) 50 units on Feb. 1, 1982; and d) 35 units on March 1, 1982.
7. The MANUFACTURER shall allow the BUYER inspection while in production and to conduct test to ascertain the quality of the water pump to be delivered.
8. Any revisions, changes, alterations, modifications on the specifications of the water pump shall be subject to mutual agreement in writings.
9. In any event of delay in the delivery as specified in Item no. 6, a 1% per day liquidated damages shall be paid by the MANUFACTURER to the BUYER computed against the value of committed delivery.



Force majeure

The MANUFACTURER shall not be responsible for damages or delay due to acts of God, fortuitous events, government restrictions or orders, war, warlike conditions, hostilities, embargo, revolution, riot, strikes, lockout, epidemics, typhoons, or any other unforeseen circumstances or causes beyond their control.

CONTRACT ORDER AGREEMENT

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be signed at Manila, Philippines on this 22 day of July, 1981.

GEORGIA INSTITUTE OF TECHNOLOGY
(Buyer)

TRI-STAR METAL INDUSTRIES
(Manufacturer)

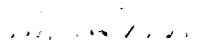
By:

BY:


Alan Paulkovich


Rene Galera

SIGNED IN THE PRESENCE OF:



May 14, 1981

Water and Sanitation for Health (WASH) Project
Order of Technical Direction (OTD) No. 40

TO: Mr. James Arbuthnot, P.E.
WASH Contract Project Director

FROM: Mr. Victor W.R. Wehman, Jr., P.E., R. *JWW*
AID WASH Project Manager

SUBJECT: Provision of Technical Assistance Under WASH Project Scope of Work
for USAID/Philippines (Manila)

REFS: A) MANILA 1775, 22 Jan. 81
B) MANILA 6628, 23 Mar. 81

1. WASH contractor requested to provide technical assistance to USAID/Philippines as per Ref. A (modified in this OTD). Contractor to provide technical assistance to accomplish para. 3 under Scope of Work Ref. A for component 1 and component 2. Component 3 is not authorized at this time under this OTD.
2. WASH contractor/subcontractor/consultants authorized to expend up to 215 person days of effort over a 6 month period to accomplish this technical assistance effort.
3. Contractor authorized up to 200 person days of international per diem to accomplish this effort.
4. Contractor to coordinate with ASIA/PD (Mr. Nussbaum), ASIA/TR/HN (Mr. Keller), AID/ASIA desk officer and should provide copies of OTD No. 40 along with periodic progress reports as requested by DS/HEA or ASIA Bureau.
5. Effort is to be an intensive one with technical assistance to 2 or 3 handpump manufacturers in the Philippines in 4 to 6 month period rather than normal 10 to 12 month period of past AID handpump program country activities. Expect it will be necessary to staff at least one full-time person to Philippines to work for 5 to 6 months continuously, supplemented by other specialty and management personnel as necessary. (See component 2 for example).
6. Contractor authorized to provide up to six (6) international round trips from consultants home-base through Washington to Philippines and return to home-base through Washington during life of OTD.
7. Contractor authorized up to 20 round-trip internal Philippines airline trips from Manila to ILO ILO or CEBU Islands to work with local manufacturers if necessary. Mission and DS/HEA may decide to work only with local manufacturers in Manila Metro Area as project proceeds.

8. Contractor authorized to obtain secretarial, graphics or reproduction services in Philippines as necessary to accomplish tasks. These services are in addition to the level of effort specified in para. 2 and para 3 above.
9. Contractor authorized to expend up to \$4,500 for the training materials for the development or printing/support services associated with item 3, component 1, line item E.
10. Contractor authorized to provide for car rental if necessary to facilitate effort. Mission is encouraged to provide mission vehicles, if available.
11. Contractor will take portable (Manual) typewriter for consultants use in the field.
12. Item 3 component 1 line B of Ref. A changed from "1000" to "300" two inch and "100" three inch deep well cylinders.
13. Item 3 component 1 line C last sentence changed to read "This will include the provision of drawings, patterns, replication of prototype handpumps, and the provision of continuous technical assistance through final acceptance by the WASH contractor of the 250 AID handpumps, the 300 two inch deep well cylinders and the 100 three inch deep well cylinders."
14. Contractor authorized up to a total of \$45,000 for the purchase of the patterns, molds and handpump and cylinder assemblies by subcontract from your subcontractor to local manufacturer(s) in the Philippines. No single purchase orders or sub-contracts with local manufacturers shall exceed \$20,000 in value.
15. Contractor is authorized to install and train locals in installation of up to 20 of the handpump systems in sites agreeable to and with the approval of AID mission liaison officer (Mr. Brady).
16. WASH contractor will adhere to normal established administrative and financial controls as established for WASH mechanism in WASH contract. Mission liaison has requested that they initial field vouchers being sent back from field to mission. This has been agreed to by DS/HEA project manager. However, the contractor must understand that this is a participatory arrangement between USAID/Philippines and DS/HEA and does not represent an approval or disapproval by AID of the services vouchered in the particular voucher by the field consultant. All official approvals, disapprovals or decisions to ask for audits or revouchering continue to be made by the project manager in DS/HEA. DS/HEA however welcomes the mission's interest in validating that services were actually provided.
17. Items 5 para. A, B. and C. of Ref. A apply. Items 5 para. D and E of Ref. A do not apply to WASH contracting mechanism. WASH contractor should definitely be prepared to administratively or technically backstop field consultants and subcontractors.

18. Contractor report on overall progress of activity to be made in writing after each 40 person days of effort. Upon final acceptance of all locally manufactured equipment, the final report is due within 30 days to mission.

19. Mission should be contacted immediately and technical assistance initiated before the end of May 1981.

20. Appreciate your prompt attention to this matter. Good luck.

VWW:ja:5/14/81

ACTION COPY

UNCLASSIFIED
Department of State

INCOMING TELEGRAM

PAGE 01 MANILA 01775 01 OF 04 220751Z 060132 AID4983
ACTION AID-35

MANILA 01775 01 OF 04 220751Z 050132 AID4983

ENTITLED, "HANDPUMP." IT WILL COVER A DISCUSSION OF HANDPUMP INSTALLATION, MAINTENANCE AND REPAIR.

ACTION OFFICE OSME-01
INFO AAAS-01 AJEM-01 ASP1-02 ASDP-02 ASPD-03 ASTE-01 AADS-01
DSPO-03 ENGR-02 CNB-01 RELO-01 MAST-01 /020 A4 722

E. PARTICIPATION AS PRINCIPAL RESOURCE SPEAKER IN A FIVE-DAY TRAINING SEMINAR FOR LOCAL GOVERNMENT WATERWORKS TECHNICIANS, THE BVP LOCAL ARCHITECTURAL AND ENGINEERING FIRM AND USAID ENGINEERING PERSONNEL. THE SEMINAR WILL UTILIZE THE MATERIALS PREPARED IN ITEM "D" OF THE SCOPE OF WORK AS THE BASIS FOR THE CURRICULUM AND WILL COVER HANDPUMP INSTALLATION, MAINTENANCE AND REPAIR.

INFO OCT-01 /036 W
-----054511 220752Z /34

R 220606Z JAN 81
FM AMEMBASSY MANILA
TO SECSTATE WASHDC 1872

- QUALIFICATIONS: THE QUALIFICATIONS FOR COMPONENT #1 OF THE SCOPE OF WORK ARE:

UNCLAS SECTION 01 OF 04 MANILA 01775

AIDAC

- CIVIL OR MECHANICAL ENGINEER WITH FIELD EXPERIENCE IN RURAL WATER PROGRAM HANDPUMP ACTIVITIES. IDEALLY, THE CANDIDATE FOR THIS ASPECT OF THE SCOPE OF WORK SHOULD ALSO HAVE EXPERIENCE WORKING WITH SUPPLIERS, MANUFACTURERS, AND FOUNDRIES IN THE REPRODUCTION OF HANDPUMPS.

FASS TO MR. GENE MCJUNKIN, DS/NEA/COMMUNITY WATER SUPPLY

E.O. 12065: N/A
SUBJECT: TECHNICAL ASSISTANCE - BARANGAY WATER PROGRAM

- MANPOWER REQUIREMENTS:

REF: (A) 88 STATE 324366, (B) 80 MANILA 35419

- ONE (1) TECHNICIAN WILL BE REQUIRED FOR A FIVE-MONTH PERIOD OF CONTINUOUS SERVICE IN THE PHILIPPINES. THIS PERSON WILL INITIATE THE WORK TO IDENTIFY SUPPLIERS AND MANUFACTURERS AND REMAIN IN THE PHILIPPINES FOR THE DURATION OF PERIOD REQUIRED TO - 1) DEVELOP FIFTY COPIES OF THE PROTOTYPE AIR HANDPUMP AND ONE THOUSAND IMPROVED TWO-INCH PLASTIC CYLINDERS, 2) PREPARE THE APPROPRIATE SECTION FOR THE BVP OPERATIONAL MANUAL, AND 3) CONDUCT THE THREE TO FIVE DAY TRAINING SEMINAR ON HANDPUMP INSTALLATION, MAINTENANCE, MONITORING AND REPAIR.

1. SUMMARY:

THE MISSION HAS REQUESTED TECHNICAL ASSISTANCE FROM AID/W FOR THE LOCAL REPRODUCTION OF THE AID HANDPUMP.

COMPONENT #2 - (WELL DESIGN AND CONSTRUCTION)

WASHINGTON RECENTLY APPROVED SUCH ASSISTANCE. IT WILL BE FUNDED UNDER THE NEWLY AUTHORIZED WATER AND SANITATION FOR HEALTH PROJECT (WASH).

THIS CABLE OUTLINES A SCOPE OF WORK FOR SUCH ASSISTANCE, PROVIDES A BUDGET FOR SERVICES AND GOODS REQUIRED AND SUGGESTS OTHER PROGRAM AREAS FOR MUTUAL COOPERATION.
END SUMMARY.

2. MISSION AGREES THAT THE AVAILABILITY OF A BETTER HANDPUMP FOR VILLAGE WELLS IS A NECESSITY AND ACCEPTS ASSISTANCE OFFERED IN REFTEL A. SURVEYS AND MISSION OBSERVATION, HOWEVER, DEMONSTRATE THAT THE PROVISION OF IMPROVED HANDPUMP WITHOUT EQUAL ATTENTION TO SOURCE DEVELOPMENT, MAINTENANCE AND REPAIR WILL YIELD ONLY MARGINAL BENEFITS. THUS, THIS CABLE PROPOSES A SCOPE OF WORK WHICH ADDRESSES ALL THREE AREAS. IT CONSTITUTES A COMPLETE HANDPUMP PROGRAM.

3. SCOPE OF WORK:

COMPONENT #1 - (HANDPUMP DEVELOPMENT AND REPRODUCTION)

THE SCOPE OF WORK HAS THREE BASIC COMPONENTS. THIS WORK COMPONENT CONSISTS OF THE FOLLOWING TASKS:

A. SELECTION OF A SUITABLE MANUFACTURER FOR REPRODUCTION OF TWO HUNDRED FIFTY (250) AID HANDPUMPS.

B. SELECTION OF SUITABLE MANUFACTURERS AND SUPPLIERS FOR THE REPRODUCTION OF ONE THOUSAND (1000) IMPROVED 2" CYLINDERS FOR DEEP WELL HANDPUMPS.

C. PROVISION OF TECHNICAL ASSISTANCE TO BOTH OF THE ABOVE SUPPLIERS ON THE VARIOUS ASPECTS OF HANDPUMP AND CYLINDER REPRODUCTION. THIS WILL INCLUDE THE PROVISION OF DRAWINGS, PATTERNS, REPLICATION OF PROTOTYPE HANDPUMPS, AND THE PROVISION OF CONTINUOUS TECHNICAL ASSISTANCE UP TO THE DELIVERY OF THE FIRST FIFTY HANDPUMPS AND ALL ONE THOUSAND CYLINDERS.

D. PREPARATION OF A SECTION IN THE BVP OPERATIONS MANUAL

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PAGE 01 MANILA 01775 02 OF 04 220751Z 060133 AID4939

MANILA 01775 02 OF 04 220751Z 060133 AID4939

ACTION AID-35

A DETAILED MANUAL FOR INSTALLATION, REPAIR AND MAINTENANCE OF WIND-DRIVEN SYSTEMS AND FACILITIES.

ACTION OFFICE DSME-01
INFO AAAS-01 ASEH-01 ASDP-02 ASPD-03 ASTR-01 AADS-01 ENGR-02
CH8-01 RELO-01 MAST-01 /015 A4 722

- QUALIFICATIONS: CIVIL OR MECHANICAL ENGINEER WITH EXPERIENCE IN THE USE OF WINDMILLS FOR PUMPING WATER. INDIVIDUAL SHOULD BE KNOWLEDGEABLE ON THE ENTIRE RANGE OF WINDMILL DESIGNS AND CAPABILITIES.

INFO OCT-01 /036 W

-----054519 220755Z /34

- MANPOWER REQUIREMENTS: ONE (1) ENGINEER AS DESCRIBED ABOVE WILL BE REQUIRED FOR A PERIOD OF ONE YEAR DURING THE SELECTION, DESIGN AND CONSTRUCTION PHASES FOR SUBPROJECTS FOLLOWED BY THE SERVICES OF A SIMILARLY QUALIFIED TECHNICIAN FOR A TWO-MONTH EVALUATION AT THE CONCLUSION OF THE FIRST YEAR OF SUBPROJECT OPERATION.

R 220606Z JAN 81
FM AMEMBASSY MANILA
TO SECSTATE WASHDC 1873

UNCLAS SECTION 02 OF 04 MANILA 01775

AIDAC

THIS COMPONENT CONSISTS OF THE FOLLOWING TASKS:

THE MISSION RECOMMENDS AGAINST BROKEN ASSIGNMENTS OF PERSONNEL CONSISTING OF TWO TO THREE-MONTH STINTS ALTERNATELY SPENT HERE AND IN THE U.S. PAST EXPERIENCE WITH SUCH ASSIGNMENTS PROVE THEM TO BE EXPENSIVE AND ONLY MARGINALLY PRODUCTIVE. THUS, EMPHASIS SHOULD BE PLACED ON RECRUITING FIRMS WILLING TO ASSIGN PERSONNEL FOR THE DURATION OF THE RESPECTIVE ASSIGNMENTS.

A. FAMILIARIZATION OF BWP WELL REQUIREMENTS BASED ON SURVEY OF EXISTING BWP PROJECTS.

4. BUDGET:
COMPONENT #1 - (HANDPUMP/CYLINDER - REPRODUCTION AND TRAINING)

B. DEVELOPMENT OF A SECTION FOR THE BARANGAY WATER OPERATIONS MANUAL ENTITLED "WELL DESIGN AND CONSTRUCTION." THIS SECTION OF THE MANUAL WILL PROVIDE THE DESIGN STANDARDS AND SPECIFICATIONS FOR ALL BWP WATER PROJECTS, BOTH POINT-SOURCE DEVELOPMENT FACILITIES AND FULL-FLEDGED PRODUCTION WELLS FOR WATER SYSTEMS.

- SALARIES AND WAGES (FIVE-MAN MONTHS AT \$3,000 PER MONTH)	\$15,000
- OVERHEAD (100 PCT OF SALARIES & WAGES)	15,000
- DEFENSE BASE ACT INSURANCE	1,350
- IN-COUNTRY TRAVEL (15) ROUND TRIPS MANILA/CEBU/MANILA	1,500

C. PROVISION OF TECHNICAL ASSISTANCE TO VARIOUS MANILA AND/OR CEBU BASED SUPPLIERS AND MANUFACTURERS FOR THE PROVISION OF PLASTIC WELL CASING AND WELL SCREENS.

D. PARTICIPATION AS A PRINCIPAL RESOURCE SPEAKER IN A SEMINAR FOR WATERWORKS TECHNICIANS, LOCAL AGE ENGINEERS, AND USAID TECHNICAL PERSONNEL ON WELL DESIGN AND CONSTRUCTION. THIS ASPECT OF TRAINING WILL INCLUDE WELL SITE SELECTION, MATERIALS, DESIGN STANDARDS, DRILLING, CASING, GRAVEL PACKING, CROUTING, TESTING AND DISINFECTING WELLS.

- QUALIFICATIONS: HYDROGEOLOGIST/GEOHYDROLOGIST, CIVIL/MECHANICAL OR SANITARY ENGINEER WITH EXTENSIVE EXPERIENCE IN WELL DRILLING.

- MANPOWER REQUIREMENTS: ONE (1) PERSON FOR A FIVE-MONTH, CONTINUOUS PERIOD OF ASSIGNMENT IN THE PHILIPPINES.

COMPONENT #3 - (TRIAL PROJECT FOR TESTING WIND-POWERED COMMUNAL WATER SYSTEMS)

THIS COMPONENT OF THE SCOPE WILL CONSIST OF THE FOLLOWING:

A. IDENTIFICATION OF SITES FOR THE CONSTRUCTION OF SMALL, COMMUNAL WIND-POWERED WATER SYSTEMS AND FACILITIES.

B. IDENTIFICATION OF APPROPRIATE MATERIALS AND EQUIPMENT FOR WIND-DRIVEN SYSTEMS/FACILITIES.

C. PROCUREMENT OF MATERIALS AND EQUIPMENT.

D. PROVISION OF TECHNICAL ASSISTANCE IN THE DESIGN AND INSTALLATION OF THE SPECIFIED SYSTEMS AND FACILITIES.

E. PROVISION OF TECHNICAL ASSISTANCE DURING INITIAL OPERATING PERIOD OF SYSTEMS AND FACILITIES.

F. CONDUCT OF AN EVALUATION OF THE SYSTEMS AT THE END OF THE FIRST YEAR OF OPERATION AND PREPARATION OF RECOMMENDATIONS FOR REMEDIAL ACTION OR FURTHER EXPANSION OF WIND-POWERED WATER PUMPING PROJECTS. FURTHER MODIFICATION OR EXPANSION OF THE PROJECT WILL REQUIRE THE PREPARATION OF

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- INTERNATIONAL TRAVEL (1 ROUND TRIP) 2,000
- PER DIEM (FIVE MONTHS AT \$45 PER DAY) 6,975
- EQUIPMENT:
 - HANDPUMPS - \$125/UNIT X 250 UNITS) 31,250
 - CYLINDERS - \$30/UNIT X 1000 UNITS) 30,000
 - REPLACEMENT PARTS FOR CYLINDERS) 5,000
- PRINTING/SECRETARIAL SERVICES (MANUALS AND TRAINING MATERIALS) 5,000
- TRAINING (PARTICIPANT COSTS) 4,000
- TOTAL COST FOR COMPONENT #1 517,075

COMPONENT #11 - (WELL DEVELOPMENT/LOCAL PRODUCTION OF WELL SCREENS AND TRAINING)

- SALARIES AND WAGES (FIVE MAN-MONTHS AT \$3,000/MONTH) 15,000
- OVERHEAD (100 PCT OF SALARIES & WAGES) 15,000
- IN-COUNTRY TRAVEL 2,000
- INTERNATIONAL TRAVEL (1 ROUND TRIP USA/MANILA/USA) 2,000
- PER DIEM (5 MONTHS AT \$45 PER DAY) 6,975
- MATERIALS (MANUFACTURING & PROCUREMENT OF WELL CASING) 25,000
- PRINTING (MANUALS & TRAINING MATERIALS) 5,000
- TOTAL COST FOR COMPONENT #11 572,325

COMPONENT #111 - (PILOT FOR WIND-DRIVEN COMMUNAL WATER SYSTEMS AND EVALUATION)

- PHASE 1:
 - SALARIES & WAGES (12 MOS. X \$3000/MO.) 36,000
 - OVERHEAD (100 PCT OF SALARIES & WAGES) 36,000
 - DEFENSE BASE ACT INSURANCE 3,240
 - IN-COUNTRY TRAVEL 3,500
 - INTERNATIONAL TRAVEL (1 ROUND TRIP USA/MANILA/USA) 2,000
 - PER DIEM (35 PCT OF WORK OUTSIDE MANILA) 4,000

- HOUSING AND UTILITIES 12,000
- EQUIPMENT (PURCHASE OF LOCALLY AVAILABLE WINDMILLS) 24,000
- PRINTING/SECRETARIAL SERVICES (REPORTS AND MANUALS) 5,000
- TOTAL PHASE 1 COMPONENT #111 5125,740
- PHASE 2 (EVALUATION OF PHASE 1 SUBPROJECTS):

AN EVALUATION IS PROPOSED TO TAKE PLACE AFTER WIND-DRIVEN COMMUNAL WATER SYSTEMS HAVE BEEN OPERATIONAL FOR ONE YEAR. ITS FINDINGS SHOULD SUGGEST A COURSE OF ACTION TO MODIFY OR EXPAND THE PROGRAM (OR BOTH) AND SIGNAL OPPORTUNITIES FOR THE USE OF OTHER NON-CONVECTIONAL SOURCES OF ENERGY FOR PUMPING WATER, PARTICULARLY OF ADDITIONAL INTEREST ARE SMALL SOLUC ELECTRIC PUMPS UTILIZING SOLAR VOLTAIC CELLS.

- EVALUATION:
 - SALARIES AND WAGES (2 MONTHS AT \$3500/MO) 7,000
 - OVERHEAD (100 PCT OF SALARIES & WAGES) 7,000
 - IN-COUNTRY TRAVEL (EACH OF THE PILOT AREAS 1-1/2 TIMES) 1,000
 - INTERNATIONAL TRAVEL (1 ROUND TRIP USA/MANILA/USA) 2,500
 - PER DIEM (60) DAYS AT \$50/DAY 3,000
 - PRINTING & SECRETARIAL SERVICES (REPORTS, MANUALS) 2,000
 - TOTAL PHASE 2 COMPONENT #111 572,500

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- TOTAL BUDGET:

- COMPONENT I	\$117,075
- COMPONENT II	72,325
- COMPONENT III	
- PHASE 1	125,740
- PHASE 2	22,500
GRAND TOTAL	\$337,140

5. ADMINISTRATIVE AND SUPERVISORY ARRANGEMENTS:

- A.** THE CONTRACTORS WILL WORK CLOSELY WITH USAID AND PROVIDE TECHNICAL ADVICE TO LOCAL MANUFACTURERS, AND BOTH LOCAL AND NATIONAL GOVERNMENT OFFICIALS. THEY WILL WORK UNDER THE GENERAL SUPERVISION OF THE CHIEF OF THE MISSION'S OFFICE OF CAPITAL DEVELOPMENT AND ENGINEERING.
- B.** DAY-TO-DAY SUPERVISION WILL BE PROVIDED BY THE GOP'S PROJECT DIRECTOR FOR THE BARANGAY WATER PROJECT AND HIS USAID COUNTERPART. OFFICE SPACE AND FURNITURE WILL BE PROVIDED BY THE BARANGAY WATER PROGRAM IN THE MINISTRY OF LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT.
- C.S.** ADMINISTRATIVE, SECRETARIAL SERVICES AND TRAVEL ARRANGEMENTS WITHIN COUNTRY WILL BE PROVIDED BY THE USAID/BWP STAFF AND OCCASIONAL PART-TIME SECRETARIES. SALARIES FOR THE LATTER ARE INCLUDED IN THE BUDGET PROVIDED.
- D.A.** TO ELIMINATE COSTLY MANAGEMENT SUPPORT EXPENSES, VOUCHERS CAN BE PREPARED AND PAID BY THE MISSION CHARGEABLE TO THE APPROPRIATE ALLOTMENT AND APPROPRIATION SYMBOLS. ALTERNATIVELY, VOUCHERS CAN BE PREPARED IN MANILA AND POUCHED TO AID/W OR THE DESIGNATED IGC.
- E.** ASSUMING THAT QUALIFIED INDIVIDUALS ARE IDENTIFIED TO PERFORM THE RESPECTIVE SCOPES OF WORK, NO ADMINISTRATIVE OR TECHNICAL BACKSTOPPING COSTS SHOULD BE NECESSARY BEYOND THOSE REFLECTED IN THE BUDGET.

6. INITIATION OF WORK

MISSION AND GOP DESIRE A START ANY TIME BEFORE MAY 1, 1981 FOR COMPONENTS #1 AND #2. START FOR COMPONENT #3 IS MORE FLEXIBLE, HOWEVER, A START BEFORE MAY 1 OR AFTER JULY 15 IS PREFERRED. MURPHY

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PASS TO GENE MCJUNKIN, DS/HEA/COMMUNITY WATER SUPPLY

E. O. 12065 N. A.

SUBJECT: TECHNICAL ASSISTANCE - BARANGAY WATER PROGRAM

REF: A. 80 STATE 324366 B. MANILA 01775

1. BASED ON LIKELIHOOD OF RECEIVING ASSISTANCE FROM THE WASH PROJECT FOR THE DEVELOPMENT OF IMPROVED HANDPUMPS AND CYLINDERS, MISSION SUSPENDED SIMILAR BUT MORE MODEST EFFORTS WITH LOCAL INSTITUTIONS.
2. MINISTRY OF LOCAL GOVERNMENT OFFICIALS AND PERSONNEL FROM THE UNIVERSITY OF SAN CARLOS ARE NOW REQUESTING INFORMATION ON THE STATUS OF PROPOSAL SUBMITTED IN REFTEL B.
3. THEREFORE MISSION WOULD APPRECIATE COMMENTS ON: A) ACCEPTABILITY OF PROPOSAL BOTH IN TERMS OF MAGNITUDE OF FUNDING AND SCOPE OF WORK, AND B) AID/WASH PROGRESS TOWARD IMPLEMENTATION OF PROPOSAL.
4. IF PROPOSAL IS UNACCEPTABLE, MISSION IS OPEN TO RECOMMENDATIONS FOR REVISIONS.
5. PLEASE ADVISE C. C. BRADY AT EARLIEST OPPORTUNITY.
MURPHY

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