

13 FEB 2001

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**SUBJECT:** *PROJECT PROPOSAL FOR THE REHABILITATION OF 37 KM. OF THE S-10.7 LATERAL AND 3 KM. OF THE F-1 OUTLET DRAIN IN THE SHAMALAN AREA OF CENTRAL HELMAND PROVINCE, AFGHANISTAN*

***IMPLEMENTING ORGANIZATION:***

HELPING AFGHAN FARMERS ORGANIZATION (HAFO) THROUGH AN AS YET TO BE IDENTIFIED INTERNATIONAL NGO.

***ESTIMATED LENGTH OF TIME FOR PROJECT IMPLEMENTATION:***

60 DAYS FOR 1,000 MEN.

***TOTAL ESTIMATED COST:***

\$171,160, NOT INCLUDING OVERHEAD FOR THE INTERNATIONAL NGO.

***LABOR:***

THE WORK WOULD BE ACCOMPLISHED BY HAND-LABOR WITH PAYMENTS MADE IN CASH OR THROUGH FOOD-FOR-WORK. THE WORK WOULD BE TECHNICALLY SUPERVISED BY 4 HAFO FIELD ENGINEERS WITH THE INDIGINEOUS WATERMASTERS OF THE IRRIGATION SYSTEM AS WORK-CREW SUPERVISORS. THE PROJECT WOULD BE COORDINATED, ORGANIZED, SUPERVISED AND MONITORED BY AN EX-PATRIATE KNOWLEDGABLE OF THE AREA. THIS COORDINATION WOULD BE OF THE NGO'S AND THE TALIBAN GOVERNMENT OFFICES INVOLVED. THE ADDITION OF THIS EX-PATRIATE FOR THE FULL PERIOD OF THE WORK, INCLUDING THE PLANNING, ORGANIZING AND FINAL REPORT PHASES COULD ELIMINATE THE NEED FOR SUB-CONTRACTING HAFO THROUGH AN INTERNATIONAL NGO.

***THE PROBLEM:***

THE S-10.7 LATERAL IS A MID-SIZE LATERAL OFF THE OLD SHAMALAN CANAL BUILT BY U.S.A.I.D. IN THE EARLY 1970'S. AND HAS HAD NO SYSTEMATIC MAINTENANCE IN 20 YEARS. IT IS BADLY SILTED AND, IN PLACES, IN NEED OF REPAIR. THE SILTING PRIMARILY COMES FROM THE BLOWN DUST FROM THE SURROUNDING DESERT AND NOT FROM THE WATER. THUS, THE SILTING BUILDS ALONG THE EDGES OF THE LATERAL CONSTRICTING FLOW.

THE BADLY SILTED F-1 OUTLET DRAIN CONNECTS AT THE END OF THE S-10.7 LATERAL TO ALLOW FOR DRAINING THE SYSTEM IN TIMES OF REPAIR AND AS AN OUTLET FOR UNUSED IRRIGATION WATER REACHING THE END OF THE LATERAL IN TIMES OF USE.

AT THE POINT WHERE THESE TWO CHANNELS JOIN IN CENTRAL SHAMALAN, THEY ARE BOTH SILTED UP TO GROUND LEVEL. ANY UNUSED IRRIGATION WATER REACHING THE END OF THE S-10.7 LATERAL, WHICH IS RARE, FLOWS ON THE SURFACE AND RESULTS IN WATERLOGGING.

SINCE THE OLD SHAMALAN CANAL HAS BEEN WASHED OUT BY THE HELMAND RIVER JUST BELOW THE S-10.7 LATERAL INTAKE, THIS MID-SIZED LATERAL NOW IRRIGATES A VERY LARGE PORTION OF NORTH AND CENTRAL SHAMALAN INTO THE AYNAK AREA. IT ALSO IRRIGATES ROUGHLY ONE HALF OF THE FARM LAND INTO SOUTH SHAMALAN ALONG THE DESERT ESCARPMENT. THERE IS MUCH GREATER DEPENDENCE ON THE S-10.7 LATERAL THAN ORIGINALLY PLANNED.

***PROJECT GOALS:***

- IMPROVE WATER FLOW THROUGH THE S-10.7 LATERAL WHICH WILL IMPROVE FOOD GRAIN AND CASH CROP PRODUCTION IN THE REGION ESPECIALLY DURING THE SECOND CROPPING SEASON, THE HOT SEASON WHEN IRRIGATION WATER IS IN GREATEST DEMAND.
- SOME 1,500 TO 2,000 FARM FAMILIES, INCLUDING WOMEN AND CHILDREN, WILL BENEFIT FROM THE WORK ON THEIR IRRIGATION SYSTEM THROUGH THE INCREASED FARM PRODUCTION AND INCOMES FROM THE HAND LABOR INVOLVED. THIS MAY BE AN UNDERESTIMATE OF FARM FAMILY BENEFICIARIES SINCE IT IS BASED ON PRE-WAR ESTIMATES OF 20 YEARS AGO. THE PASSING OF A GENERATION HAS NO DOUBT FURTHER SUB-DIVIDED THE PREVIOUSLY FRAGMENTED LAND HOLDINGS. WOMEN WOULD NOT BE EXPECTED TO PARTICIPATE IN

THE HEAVY MANUAL LABOR OF THE PROJECT. THE SEXUAL DIVISION-OF-LABOR IN THIS PASHTUN SOCIETY DOES NOT ALLOW WOMEN TO DO HEAVY MANUAL LABOR OF THIS SORT. THEY WOULD BE EXPECTED TO PARTICIPATE IN THE PLANNING FOR RELATED WORK ALONG THE CHANNEL BANKS, E.G., IMPROVEMENTS ON THE LOCATION AND CONSTRUCTION OF THE CRUDE PATHS, STEPS AND PLATFORMS PRESENTLY CUT DOWN AND INTO THESE BANKS FOR WASHING AND COLLECTING WATER.

- SOME 1,000 FARM FAMILIES WILL BENEFIT FROM THE DAY-LABOR WAGES INVOLVED IN THE WORK. THIS WILL INCLUDE SOME OF THE PEOPLE IN THE REGION MOST AFFECTED BY THE RECENT DROUGHT. THIS IS A WINTERING AREA FOR PASHTUN SHEEP HERDING NOMADS WHO CAMP ALONG THE IRRIGATION SYSTEM. MANY OF THESE PEOPLE LOST SHEEP HERDS BECAUSE OF THE LACK OF WINTER RAINS AND GRASS OVER THE PAST TWO YEARS. IT IS ALSO A REGION THAT ATTRACTS LARGE NUMBERS OF WINTER SEASON THROUGH LATE SPRING MIGRANT FARM LABOR FROM THE FOOTHILL AND MOUNTAINOUS REGIONS TO THE NORTH, MOST OF WHO HAVE BEEN HIT BY THE DROUGHT. IN THE SPRING OF 2000, THE REGION WAS FLOODED WITH AN EXCESS OF FARM LABORERS FROM THESE REGIONS. LABOR RECRUITMENT WILL TARGET FIRST THESE LABORERS.
- THIS PROJECT WOULD BE IN RECOGNITION AND SUPPORTIVE OF THE OPIUM POPPY BAN INITIATED BY THE TALIBAN IN THE SUMMER OF 2000 AND OBEYED BY THE FARMERS THIS CROP SEASON. TO DATE THE INTERNATIONAL COMMUNITY HAS GENERALLY IGNORED THIS ACTION. IT WOULD REHABILITATE THE IRRIGATION SYSTEM ALLOWING THE FARMERS TO SHIFT BACK TO THEIR TRADITIONAL DOUBLE CROPPING SYSTEM WITH THE CASH CROP BEING COTTON NOT POPPY, SOMETHING THE TALIBAN AND THE FARMERS HAVE BEEN REQUESTING FOR SOME 5 YEARS. IT WOULD HELP SUPPLEMENT FARM INCOMES THAT HAVE BEEN REDUCED BY THE ELEMINATION OF POPPY. IT WOULD FACILITATE A CONTINUING DIALOGUE WITH THE TALIBAN AND THE FARMERS ON THE RELATIONSHIP BETWEEN DEVELOPMENT/RECONSTRUCTION ACTIVITIES AND THE CONTINUATION OF THE POPPY BAN.
- THE WORK EXPERIENCE WOULD BE FULLY DOCUMENTED IN A FINAL REPORT OUTLINING PRODUCTIVITY OF WORKERS, METHODS OF ORGANIZATION AND COORDINATION, AND EXPENDITURES. PROBLEMS

FACED IN IMPLEMENTATION WOULD ALSO BE OUTLINED. LESSONS LEARNED WOULD ALSO BE DETAILED IN THE REPORT.

**POTENTIAL PROBLEMS WITH IMPLEMENTATION:**

1. THE ENCROCHMENT OF VILLAGE STRUCTURES ON TO THE LATERAL'S SERVICE ROADS THAT WILL HAVE TO BE REMOVED TO PROVIDE FREE ACCESS TO WORK AREAS.
  
2. WEST OF AYNAK, THE NAD-I-ALI WASTEWAY WAS TAPPED BY NEWLY SETTLED FARMERS TO IRRIGATE SECTIONS OF THE DESERT ESCARPMENT. THE WASTEWATER FROM THIS OUT-OF-PROJECT IRRIGATION DRAINS DOWN INTO THE S-10.7 LATERAL, BREACHING AND WEAKENING THE LATERAL'S EMBANKMENTS.
  
3. THE ENCROACHMENT OF VILLAGER BUILT FOOT BRIDGES ACROSS THE LATERAL THAT CONSTRICTS WATER FLOW WILL HAVE TO BE ADDRESSED.

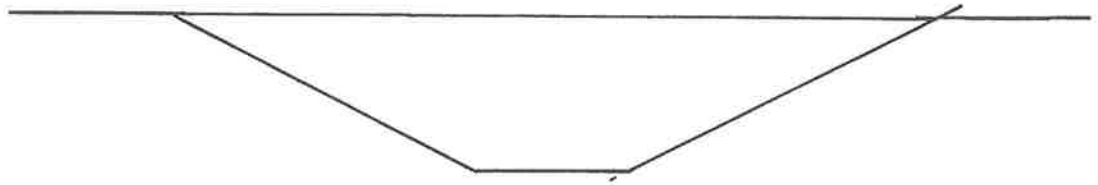
**BUDGET:**

• HAND LABOR: (1,000 MEN FOR 60 DAYS @ \$2.00 PER DAY) OR 60 METRIC TONS OF WHEAT,FFW	\$120,000
• 4 HAFO FIELD ENGINEERS: 2 MONTHS @ \$400/MONTH	\$1,600
• EX-PATRIATE: 3 MONTHS @\$3,000/MONTH)	\$9,000
• EQUIPMENT AND TRANSPORTATION : VEHICLE RENTAL, PICKS, SHOVELS, WHEEL BARROWS, TRACTOR RENTAL, ETC.	\$10,000
• H.A.V.A. COSTS: (SURVEY CREWS, SALARY SUPPLEMENTS, HEAVY EQUIPMENT RENTAL, ETC.)	\$10,000
• CONTINGENCY/SUPPLIES: (STONE, CEMENT, MASONS, ETC.)	\$5,000
• H.A.F.O. OVERHEAD @10%	\$15,560
<b>TOTAL =</b>	<b>\$ 171,160</b>

*Not Funded*

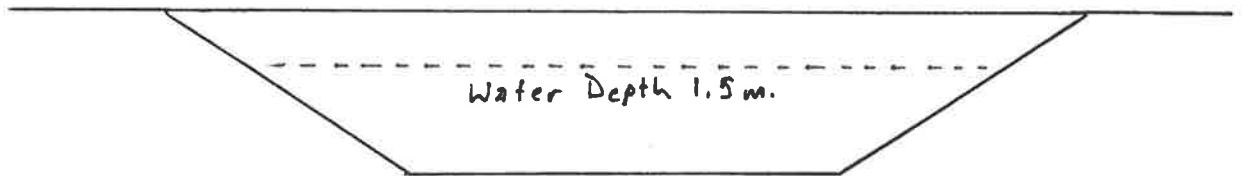
CROSS-SECTION OF OUTLET DRAIN F-1. LENGTH: 3.187 KM.

BASE = 2M. DEPTH = 2M. Slope  $\frac{3}{2}$



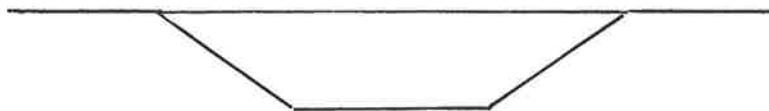
CROSS-SECTION OF S-10.7 LATERAL AT START.

BASE = 5.5 M. DEPTH = 2.3 M. Slope  $\frac{1}{1.5}$  CMS - 9.5



CROSS-SECTION OF S-10.7 LATERAL AT KM. 34.

BASE = 2.5 M. DEPTH = 1.55 M.





1. S-10.7 lateral at the Shamalan canal intake, Km. 0, in 1972 before channel use.



2. S-10.7 lateral at the Shamalan canal intake, Km. 0, on 20 April 1998. Note narrowing of channel by silt build-up.





1. S-10.7 lateral at the Shamalan canal intake, Km. 0, in 1972 before channel use.



2. S-10.7 lateral at the Shamalan canal intake, Km. 0, on 20 April 1998. Note narrowing of channel by silt build-up.





3. Silted Shamalan Canal at S-10.7 lateral intake (bottom left). This silt would be removed and used to fill the intake wing erosion in Photo #6. Water level is low. 21 March 1997.



4. Silted Shamalan Canal at S-10.7 lateral intake (bottom left). Water level is high. 24 April 2000.





5. S-10.7 lateral intake gate off the Shamalan Canal. Note eroded wings and service road on right and left to be filled, compacted and stabilized with stone. HAKO Director, Engineer Jawed on left, 21 March 1997.



6. S-10.7 lateral intake gate off the Shamalan Canal with eroded wings and service road. 24 April 2000.





7. S-10.7 lateral intake gate off the Shamalan Canal (topright) with eroded wing and right bank service road. The sticks are placed by the farmers in hope that they will root and stop erosion. 24 April 2000



8. S-10.7 lateral intake gate off the Shamalan Canal with eroded wings and left bank service road. Note farmer placed sticks in an attempt at erosion control. The erosion resulted from years of no maintenance and the increase of water through the system. 24 April 2000





9. Silted banks of S-10.7 lateral at  $\pm$  Km. 29. 21 April 98



10. Farmer constructed bridge at  $\pm$  Km. 4 on S-10.7 lateral that constricts water flow. 20 April 98.



11. Silted banks of S-10,7 lateral at the Lashkar Gah to Marja road. The green grass is on silt to be removed, Note the compound wall built on the service road (top left). 10 Oct 97



12. Silted banks of S-10,7 lateral at  $\pm$  km. 3. 20 April 98. HAFO Director, Engineer Jawed in center.