## For 6-month report:

## The Work Period:

The total work period was between 31 December 1998 and 26 March 1999. The period between 12 and 31 December was filled with the following:

- (1.) Meetings and negotiations with HAVA officials on the costs for rental of heavy equipment and delivery time to the various work sites. Delivery of heavy equipment to the various sites was always days if not weeks behind agreed upon dates. The known reasons for the delays included breakdowns of the lowboy delivery trucks, promised equipment was not running or had been sent to other locations.
  - (2.) Meetings with the two Chief Watermasters of Nad-i-Ali and Marja, Mohammad Karim and Sar Malim on the subjects of recruiting, supervising and managing large work crews from each of the two regions.
  - (3.) Field visits to the area to identify potential critical work sites.
  - (4.) Discussions with HAVA officials on when the Boghra canal could be closed down for work. Most desilting work required water to be out of the canal.
  - (5.) Repair and maintenance of the MCI grader to get it into working order. This grader was used in the movement and spreading of the silt taken from the canal and in the process, improving the service roads in the area making access easier.
  - (6.) Purchasing and transporting (some from Kandahar) the hand tools and supplies necessary for the work including picks, shovels, wheelbarrows, hand compactors, mechanical compactors, gabion baskets, etc.
  - (7.) Planning and assigning staff to the different work areas and tasks and activities.

Hand labor work started on the first underdrain in Nad-i-Ali on 31 December 1998. Protection work on the Loy Manda siphon barrel began on 5 January 1999 using HAVA heavy equipment, one backhoe/loader and 2 dump trucks.

The Boghra canal was closed on 25 January, one month after the date originally given for the close by the head of HAVA. By this time we were up to 250 laborers for the desilting work. Desilting was started at the Boghra intake using a very old HAVA dragline and the MCI bulldozer on 26 January. The dragline worked for roughly 6 hours before its first breakdown. The first HAVA backhoe (UNEX) was put to work desilting the Boghra canal on 28 January. Two of these machines were promised, one for each side of the canal. The second HAVA backhoe started to work on 21 February.

Work on Boghra canal desilting began in Marja on 31 January. The Boghra canal was opened on 2 February with some 10 hours warning. HAVA was under farmer pressure for water at this time. But farmers also indicated that they could go another 10 days to two weeks without water. The rain that resulted in a record flood in the river and the regional nullahs began on 5 February, sending a flood through the canal that blew out a canal wall in Marja. The Boghra canal intake gates were not closed in time to prevent the flood.

The Boghra canal was closed again on 11 February, another rain day. Damaged siphon at km. 73+962 was pumped out for cleaning and inspection. This siphon is a potential future problem having been badly damaged by a mujahadin explosive after the Russian departure. Reason unknown. The Boghra canal was re-opened for the last time on 27 February with HAVA under pressure from the farmers to open the canal. Rain occurred on 6 March eliminating the need for irrigation water. Hand labor continued desilting work along the shoulders of the canal. In Marja, most of the hand work shifted to the underdrains. The UNEX backhoes continued along the canal in East Marja. They stopped work on 16 March and were transported out by 20 March. All field work stopped by 26 March, including the final field survey along 6 representative kilometers of the Boghra canal in Nad-i-Ali.

In total, we had 26 days with no or reduced water in the canal and moved great quantities of silt out of the canal in this limited period of time. We were organized and on the site when it was time to work. We had very little effective heavy equipment but we had a lot of ready and willing workers that produced. They did the job well and the extra incomes were added to the local economy through this action.

Before the war, the maintenance period was for 40 days during the same months. Some farmers said that we moved more silt than was moved by machinery before the war. Agreed, this year was a relatively dry year but the rain was adequate and well spaced for the season and the crops. The farmers were nervous. There were rumors that we were trying to reduce the poppy crop by water shortage. There was no doubt in the region what our long term goal was and is: poppy reduction and elimination. There was some misunderstanding on the methods. HAVA chief, Maulavi Abdul Samad acted independently in the decisions on closing the Boghra canal. He is known for his independent actions, some of which are ill advised. He needed not have closed the canal when he did but he responded to political pressure. He is not an agriculturist nor does he have the reputation of listening to his subordinates who might have technical knowledge.

If we had 40 days, we could have completed much more work. The two major holidays during this work period no doubt influence our work as well. Several senior staff were periodically missing or were planning departure.

During this work period, the work schedule for staff was commonly 10 to 12 hours a day, and always seven days a week.

## Work Sites:

The work was concentrated in 3 primary regions:

- (1.) Desilting in different locations between the Boghra canal intake and the Girishk bridge, some 8 km. but primarily focused on the first 2 km. using two very old HAVA draglines and MCI and HAVA bulldozers. A washed out nullah inlet culvert was replaced within this area. At km. 10+917 a major canal embankment repair was made at the site where MCI is also replacing damaged wasteway gates. The exposed barrel of Ab Pashak siphon at km. 15+325 was provided with gabion protection.
- (2.) Major desilting and embankment repair work was accomplished between Loy Manda siphon km. 29+865 (siphon barrel protection in two places) and km. 55+450. This is the Nad-i-Ali segment of the work. Most of this was accomplished by hand labor.
- (3.) Major canal and underdrain desilting work was accomplished between underdrain 51+818 and underdrain 79+066. This is the Marja segment of the work and was accomplished by both hand labor and machine but most by the former.

The details of the work will be found in the "Accomplishments" section of this report.

## MCI Personnel:

Richard Scott, temporary project manager, arrived in Quetta on 4 December. After meetings in Quetta with MCI staff, he met with James McHugh in Islamabad. He also had a meeting with UNDCP advisor Angus Geddes. He arrived in Helmand on 12 December 1999. Except for a one day visit to Kandahar on the occasion of the U.S. bombing of Iraq, and a 5 day visit to Quetta/Islamabad for a meeting with James McHugh and visitors from Washington, he remained in Helmand for the full work period. While in Islamabad, he discussed the Helmand cotton industry and potential Pakistani involvement with Dr. Zahur Alam, Chief Agronomist, Horticulturist and Director of EDC, a prominent Pakistani consulting firm that has worked with USAID in the past.

Scott was on a 3-month contracted, extended for the 4th month to complete work in progress. He was in the field on a daily basis between December and the end of March but also established and maintained a close working relationship with the Taliban officials in Helmand, and had numerous meetings with the head of Foreign Affairs Maulavi Hashim, the Govenor Mullah Abdul Bahri, HAVA Head Maulavi Abdul Samad and other Taliban personnel. He involved them in the farmer agreement and poppy production dispute and was able to get Maulavi Hashim to attend two notable villager gatherings in Nad-i-Ali as primary speaker against poppy production in Helmand. The Taliban established a small voluntary poppy field plowing activity that turned under some 200 jeribs of poppy. The Taliban are willing to and will be involved with any future agreements of opium reduction in Helmand, if asked. They questioned why they were not involved in the previous agreement. Scott maintained a continuing dialogue with both the farmers and the Taliban on the relationship between the development work and the reduction and eventual elimination of opium poppy production. He visited both the government cotton gin and one small local cotton gin, gathering information on cotton production and problems. He continually discussed with the Taliban and farmers cotton as the past and future primary cash crop in Helmand to replace opium poppy. He was instrumental in the purchase of a small quantity (150 lbs.) of three varieties of U.S. cotton seed for testing and introduction in Helmand. The same quantity of watermelon seed from Texas, another cash crop, came in the same shipment. He initiated the action for sale and distribution of the seed before his departure. Planting time is upon us for both cotton and watermelon.

Engineer Samad, MCI chief engineer, was present in Helmand for most of the work period providing over all supervision of the desilting and repair work, designing gabion protection structures at Loy Manda and Ab Pashak, reviewing the design for the inlet culvert at the power plant at Girishk, and pushing and advising field supervisors to more and effective work. Eng. Samad was instrumental in extracting heavy equipment from HAVA for project use. For some reason, there was a HAVA reluctance to get the needed equipment into the field, even on a rental basis.

Eng. Samad was in the field on a daily basis and maintained a very close working relationship with Taliban Abdul Kayum Akundzada, HAVA Deputy, who was primarily responsible for the delivery and maintenance of the HAVA heavy equipment, a very key person. Taliban Akundzada was our key source for information about the pending re-openings of the Boghra canal, on two occasions, when official warning tended to come at the last minute.

Engineer Payenda primarily focused on the repair of irrigation structures, embankments and service roads between Loy Manda siphon 30+355 and a 32 meter break in the canal embankment below drop structure 47+650, some 17 km. and 22 sub-projects including the desilting sites. He organized a team of gabion workers for the repairs that were with him from 5 January to 19 March. He also organized work crews of up to 50 men for desilting work in his area. This area contained a concentration of damaged embankments associated with uncontrolled flooding that has passed through the Boghra canal over the past 20 years due to

damaged and missing control gates all along the canal.

Engineer-Aziz, engineer-in-charge of the korez rehabilitation and protection project came to central Helmand in late January when freezing weather brought his concrete work on korez pipes to a halt. He volunteered for a 3-4 day assignment in January to get the hand labor desilting element organized for Marja and remained on that assignment until 21 March when that work closed down. His area of responsibility was between-km. 51+818 and km. 79. some 27 km. in distance. He had 3 sub-engineers working with him. The primary work was desilting by hand and with 2 HAVA backhoes but included the desilting of 21 underdrains and removing debris from the entrance and exit of Siphon 73.962 that had been damaged by mujahadin explosives. Three rockets and a hand grenade were removed from this site without incident. Hand-labor crews numbered up to 1,200 men at maximum force. Eng. Aziz and his team lived in a village room at the work site for most of the work period between January and March.

Engineer Wardak, engineer-in-charge of the MCI Weir Project at the Boghra canal intake was re-assigned responsibility for engineering work and desilting between the intake and the Ab Pashak siphon at km. 15+325, desilting primarily with heavy equipment because of the size of the canal at this opening point. He had 4 major canal embankment fill and rebuild, and construction sub-projects. He had desilting work crews of up to 200 men. The weir project was delayed by the lack of available heavy equipment, backhoes, a dozer, loader, etc. This delay shortened the potential work period before the first flood down the Helmand River. Given the record flood that occurred on 7 February, the decision was correct. This work will begin again in July when the Helmand river flow is again reduced.

Engineer (Surveyor) Razak of sub-contractor Helping Afghan Farmers Organization (HAFO) worked in close collaboration with Chief Watermaster of Nad-i-Ali Mohammad Karim, and lived at the work site during the entire desilting work period, December through March. Eng. Razak's area of responsibility was between km. 37+950 and km. 55+450, some 17 km. and was the area of greatest desilting concentration using hand-labor that numbered more than 1,300 men at maximum force. Mohd. Karim's direct participation full time on a daily basis from the opening phase of the desilting work was a factor in the successful organization and management of this work force which was based on the indigenous system of 40 watermasters that control the water in the Nad-i-Ali area, some 11,432 hectares of farm land. Mohd. Karim was paid an unexpected bonus for his unreserved participation. The supervision of labor for this work was demanding for two men. It would not have been as successful without Mohd. Karim.

Eng. Razak did a final instrument survey of 6 representative kms. of his work area for comparison with his previous survey of the same segment of the canal. This information will have to be tabulated before the cubic meters of silt removed can be calculated. The original survey data is in the HAFO office, Peshawar.

Engineer Sukur of sub-contractor HAFO worked with Eng. Aziz in Marja sharing supervision and management work for the large and scattered work crews in desilting the Boghra canal and cleaning underdrains, residing at the work site for most of the work period.

Engineer Gul Jan, independent engineer from Lashkar Gah, also worked with Eng. Aziz in Marja sharing supervision and management work for the large and scattered work crews in this region, residing at the work site for most of the work period.

Engineer Mohammad Ehsan of sub-contractor HAFO also worked with Eng. Aziz but was responsible for liaison and monitoring the work of the two HAVA backhoes on a daily basis that desilted some 28 kms. of the Boghra canal. He was ,among other things, time keeper for MCI of equipment working time and responsible for insuring that the machines maintained canal side slopes. In the Nad-i-Ali phase of this work, he also supervised the 50-man work crews that followed up the machine work. He worked in collaboration on a daily basis with a Taliban, Hafiz Moyedin, who was responsible for this HAVA equipment operation, including re-fueling and any breakdowns. Although not a technical person, this man did an outstanding job of keeping these two backhoes operational.