2598 Big Thompson
Drake, CO 80515
10 February 1998

R. James McHugh
Counselor for Narcotics Affairs
American Embassy
Islamabad, Pakistan

Dear Mr. McHugh,

Sorry for the delay in getting this information to you. In this letter I will outline what I saw on my brief visit to the Helmand region in mid-October 1997 with a somewhat expanded discussion of the issues. There are also suggestions for small projects and small items that need funding. I have included a set of copies of photographs that I took both during my March '97 and October '97 visits. Each photo is dated. Some descriptive information is also included. Some of the photos relate directly to the issues under discussion. If you would have need for a print of any of the photos, let me know. Hopefully this combination of documentation is not too confusing but it does contain a lot of information. The trips to Helmand would not have been possible without the support and sponsorship of Engineer Sayed Jawed of Helping Afghan Farmers Organization (HAFO) whose main office is in Peshawar.

The photography in and around Kandahar is limited (Photos No. 3 and 4) to the Kandahar Silo, no longer in operation, and of the HAFO Vocational Training Center to be completed in March '98. The Center will train up to 120 students at a time in carpentry, welding, tinsmithing, etc. Initial funding was from the work of the trainees in the HAFO training center in Ghazni. Additional start-up funding is needed for equipment.

I have also included two sketch maps to indicate the locations of some of the regional problems I discuss in the text: 1) the area of the Boghra Canal intake on the Helmand River taken from an old Morrison-Knutson Afghanistan (MKA) map (1948) and 2) the upper Shamalan region indicating the locations of the Shamalan Canal, the S-10.7 Lateral (referred to locally as the "Little Boghra") and the Russian-built Shamalan Lateral (sometimes referred to as "Little Shamalan") from a 1972 HAVA drawing. This map pre-dates the Russian-built lateral. My additions to these maps are only approximate and not to scale but illustrate the point being made.

THE HIGHWAY:

There are several highway photos of the Russian-built concrete surface between Kandahar and Girishk (Photos No. 5, 6, 7, 8). The road surface worsened between March and October '97. The truck traffic seems to have increased during this period (but I have little to compare it with) with very heavy loads of train wheels and other

scrap metal apparently being shipped between Turkmenistan and Pakistan smelters. There were also shipments of TV sets and other electronics on the road (from Iran?). The road surface break up is likely the result of a combination of the present over-loaded traffic and earlier preparation by Russian tank traffic. Nearer to Kandahar, the culverts blasted at the time of the Russians have been repaired, are being repaired or have been filled in but without repair of the concrete road surface. This highway surface, as you experienced, is exceedingly rough. This rough surface is very hard on all types of vehicles, tires, shocks, springs, etc. and costly for vehicle owners. Where possible, much of the traffic moves parallel to the main road surface.

Even where this road surface is at its best, there has been considerable flaking of the concrete along the expansion cracks across the highway resulting in a rhythmic bumpy road surface.

The asphalt highway between Chaman and Kandahar, originally built by MKA, is in even worse condition over most of the distance with shifting road bed more than just a rough surface. Perhaps it had more tank traffic being near the border. My photos show some of the good sections (Photos No. 1 and 2).

The road between the main highway and Lashkar Gah has always been a gravel surface, originally built by MKA (Morrison-Knutson Afghanistan) in the 1940's, and has had a new gravel layer put down by Mercy Corps within the past 3 (?) years. Apparently the gravel was not graded for size, with some larger river stones emerging on this well used route. It has received virtually no maintenance since it was re-surfaced and is very rough also (Photo No. 9). If this route were periodically graded, especially when damp, the surface would improve. I was told that HVA/HCU has a grader operational but no funds for fuel. At small cost, this road surface could be improved. On the long term, this improvement would save money on reduced vehicle repair.

POWER:

The replacement of the Kajaki to Kandahar power line observed in process in March '97, apparently with Pakistani assistance and Turkmenistan power cable, is well beyond the Lashkar Gah turn off (going in the direction of Kajaki) but can only be classed as a patch-up job. The blown original pre-stressed concrete poles (about 1 in 20) originally U.S.- funded and produced in Kandahar in the 1970's, are being replaced with metal poles sometimes set inside the shell of the old blasted concrete poles. In October '97 some of the line had already broken loose from the insulators on the new poles and hung low to the ground. Given the scarcity of development funds for Afghanistan, it is unfortunate that this job can not be done right the first time with good poles, adequate equipment and good technical assistance. At some point this work will have to be repeated but in the mean time power will be restored to Kandahar and later to Lashkar Gah. In Lashkar Gah, the cotton gin, as well as the people, could make good use of continuous power as opposed to the original back-up diesel generators now in use and in constant need of repair. The diesel

requirement for the gin was said to be 2,182 liters per 24 hours of operation (Photos No. 10 and 14).

COTTON:

As previously noted, the cotton industry and cotton gin(s) should be seen as key elements in the agriculture system needing support in the process of poppy eradication in the region. There is one functioning cotton gin in Lashkar Gah and one non-functioning cotton gin in Girishk that was just completed as the war started in 1979 but was never operational. The equipment is "new," unused and according to local statements, complete. The cotton crop with the cotton gin operation as the buyer are understood by the local farmers as a good, legitimate cash crop system with a ready, local market. The second gin was built in the Girishk area because the initial gin could no longer handle the growing cotton production in the region in a timely manner, and the cropping was gradually moving north up the Helmand. A supported and expanded agriculture system with cotton as the cash crop would bring more money to the farmers as before the war (something requested by the Taliban if they are to press the farmers to stop poppy production) and it would provide much needed income for the Taliban government.

In the past, the cotton gin provided the farmers with cotton seed free of charge and fertilizer on credit to be paid at harvest time when the raw cotton was brought to the gin and accounts were settled. The farmers also received a percentage of the cotton by-products: cooking oil, seed cake and soap. Presently the cotton gin provides the seed to interested farmers. Some 28 tons of seed were distributed for the 1997 cotton season. There is no credit system nor official source for fertilizer at this time. Apparently there is no distribution of by-products back to the farmers.

And, this past season, there was some dissatisfaction expressed by participating farmers with regard to price paid for the raw cotton by the government (cotton gin), the restrictions on who may process the cotton and who may buy it. The Helmand cotton is noted for its fineness and good quality. Apparently Pakistani buyers came to Helmand to buy raw cotton, to be ginned in Pakistan. They apparently offered prices more than double that to be paid by the Lashkar Gah cotton gin. Helmand cotton is noted to be of finer quality than that of Pakistan. The Taliban government did not allow the raw cotton to be sold to the Pakistanis. In addition, some local entrepreneurs in Helmand apparently purchased small cotton processing machines which could compete with the government cotton gin. The government has forbidden the use of these machines. Apparently the government has taken these actions to eliminate any serious competition for the cotton crop with the cotton gin. There is no doubt that the government needs the income that can be generated from the cotton gin. But the elimination of competition to the disadvantage of the farmers is not the answer. The dissatisfaction over payment for crops produced can only result in reduced production next year. The government must compete with local buyers by paying the going price for this valuable crop. (The information in this paragraph was provided by Eng. Jawed of HAFO)

In the 1960's and early 1970's cotton production in Helmand was minimal and at some point the government actually forced the farmers to plant cotton. The price paid by the cotton gin was minimal and the farmers could do better planting other crops. At some point in the mid-1970's, the new government decided to buy cotton from the farmers at a price reflecting its true value on the international market. The farmer response was rapid. Cotton production increased quickly and by 1978 the new cotton gin in Girishk was under construction. The price of cotton determines farmer productivity.

If we compare this situation of low cotton prices and controls with the long term contracts and advance payments for future cropping offered by the opium poppy trade in the region, it is clear that opium as the main cash crop in the region has the advantage. The cotton industry in the region can not or is not competing with opium. This competition requires funding, technical assistance and effective, well-trained and paid personnel...all missing in the present context. The recent crop substitution efforts seemingly focused on the traditional opium poppy growing areas, e.g., Sangin where cotton has never been important, are missing the point. Focus on areas with greatest potential impact...the areas irrigated from the Boghra canal where cotton was widely grown just before the war and where opium poppy was not grown.

The limited remaining cotton gin personnel, who must be admired for keeping the cotton gin functioning over the past 18 years with little or no help, are mostly of the older generation....literally gray beards. Apparently there has been little or no recruitment and training of new personnel in the past years. A new generation of staff need to be recruited and trained in cotton gin operations. But this requires funding and probably technical assistance. Since the British built the two cotton gins and provided the technical assistance accompanying them, they should be asked to help with the present situation (Photos No. 11 - 15).

Action should be started now to support the cotton crop agriculture system for the 1998 crop season. It is a legitimate cash crop system understood and accepted by the farmers with a ready market and the infrastructure to support it. Cotton can compete with opium as a crop substitute in central Helmand. But it needs help in terms of funding and technical assistance if it is to have a chance to compete with opium. Cotton prices paid by the cotton gin must be based on the international market value and the mechanical efficiency of the cotton gin must be up-graded, i.e., spare parts and technical assistance.

The eradication of opium poppy from central Helmand is the immediate goal. Well directed start-up rehabilitation work on the Boghra Canal (presently underway at the intake) and its tributaries combined with support for the cotton crop as the cash crop substitution for poppy are the initial first steps in the process of eradication. The use of hand labor in the rehabilitation process is another important element in the equation...a legitimate source of cash in the hands of the farmers.

HELMAND VALLEY AUTHORITY (HVA) & HELMAND CONSTRUCTION UNIT (HCU):

The Helmand irrigation system, mostly built by Morrison-Knutson Afghanistan (MKA) in the 1940's and 1950's, is the largest of the three major irrigation systems in Afghanistan. The Helmand River represents some 40 percent of surface water in the country. HVA (originally HAVA or Helmand Arghandab Valley Authority) was established to operate, maintain and expand this major irrigation system including the two dams. In the 1970's, the Arghandab area, mostly located in Kandahar province, was turned back to the authority of Kandahar.

HCU (Helmand Construction Unit) was (is) the semi-government organization trained and established by MKA to take over the construction and maintenance operations of the irrigation system as MKA departed Afghanistan at the end of its final contract in the 1950's. The equipment yard in Chan-i-Anjir was the HCU headquarters. This equipment yard presently looks more like a junk yard (Photos No. 27 - 30), but the base facility is there with limited damage from the war. The spare parts, repair equipment and tools are missing.

The present relationship between HVA and HCU is not clear to me but both exist and function and have offices in Lashkar Gah. Both organizations have some heavy equipment as in the past. I was told in March '97 that there are 3 draglines, 2 bulldozers, 1 grader and 2 dump trucks in operating condition. There are other pieces of heavy equipment in the region, e.g. bulldozer/dragline, that can be made operational having recently been moved from their war location at Kajaki to the HCU equipment yard for serious maintenance. Some spare parts and basic funding no doubt is needed.

The present HCU office is across the street from the HAFO office in Lashkar Gah.. HCU continues to do some limited amount of maintenance and construction work for HVA with a limited amount of equipment. HVA still works with the farmers to keep the irrigation system flowing. There are padlocks on some of the remaining and functioning water control gates indicating some limited attempt at water control. There are very limited numbers of HVA and HCU employees still on the roles and receive token (in March) or no (in October) salary for their daily sign in. Most if not all have other occupations in the local bazaar. Some are being hired away by NGOs or international organizations. For example, Mohd. Payenda was a key mechanical engineer with the cotton gin for many years. Presently he functions as a civil engineer on the Darwishan bridge repair for Mercy Corps. The heads of both HVA and HCU are non-bureaucratic and non-technical Taliban trying to keep things operational.

The HVA building was damaged before the arrival of the Taliban (Photos No. 16 -22) but some offices are still in use, and as noted, HVA still functions to some extent. There is usable office space in the HVA building, although in need of repair. The Engineering Section still has furniture. As previously noted, the archives of original construction drawings for the irrigation system is well-maintained by the original

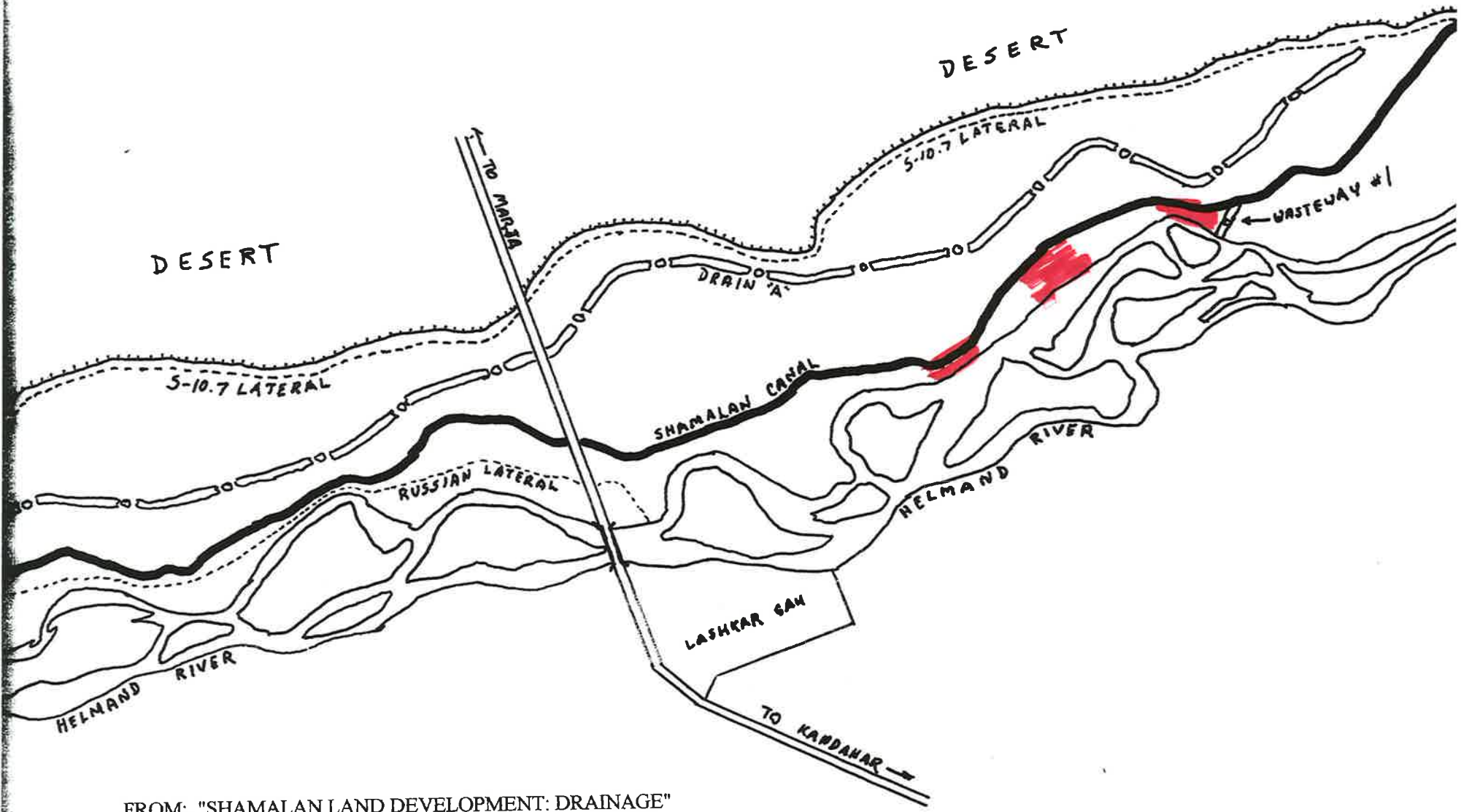
keeper (Photo No. 20). The archives for documentation still exists but is in need of glass to replace blown out windows and a lock on the door. The walls are undamaged. This documentation source includes, among other things, air photos of the irrigation system before the war. The importance of these archives is apparently not well understood by the Taliban. A small sum of money could replace blown-out windows and add a padlock to the door to preserve this documentation center, small as it is, for future reference. The technical documentation observed dates from the mid-1940's. The complex of engineering offices and the large drawing room, with drawing tables intact, would make a great training facility (Photos No. 22 - 23).

As previously noted, there is a need for greater cooperation and coordination between the NGO's functioning in the region, the U.N. organizations and HVA/HCU. There appears to be limited communications between these organizations for a variety of reasons: **1)** the result of the period of relative anarchy between the Russian departure and the Taliban arrival, i.e., no recognized central authority; **2)** the present limited recognition of the Taliban as the central authority; **3)** the limited role being played by the Taliban as coordinators. Generally the Taliban are not trained and experienced administrators but are individuals overburdened with new and probably baffling tasks for which they are not prepared; **4)** the competition between the NGOs for funding.

I have proposed earlier a foreign planning/coordinating office (technical assistance) be established in the HVA building in Lashkar Gah to work with the Taliban and attempt to attract knowledgeable Afghans back to their country, many at least on a part-time basis. Under present political conditions, this would probably have to be done under the U.N. But given the local knowledge of and respect for Americans developed through the long years of contact before the war, this unit would most likely be more effective manned by Americans. I will not repeat the proposed functions of this office here. They are outlined in my 25 April 97 letter to Alfredo Witschi-Cestari in your files. The primary function of this office would be to re-establish a foreign (American) presence in Helmand and to coordinate the start-up rehabilitation activities for the irrigation system, with the limited funds that are likely to be available, signaling to the farmers and HVA/HCU staff the changes to come....irrigation rehabilitation means opium poppy eradication. The dialogue with these groups would be on a continuous, daily basis on this subject. This important dialogue and presence can not be duplicated with the same meaning from offices in Quetta or Kandahar nor, I believe, by the U.N. and its representatives. I believe the presence and dialogue would be welcomed if accompanied by some, if limited, well directed rehabilitation funds that would improve the water flow through the system and put some earned money into the hands of the farmers through hand-labor rehabilitation projects.

OCTOBER '97 VISIT:

Between 15 and 22 October Engineer Sayed Jawed and myself visited the Kandahar and Lashkar Gah region. We met with a variety of U.N. officials in Kandahar and



FROM: "SHAMALAN LAND DEVELOPMENT: DRAINAGE"
ROYAL GOVERNMENT OF AFGHANISTAN: HAVA
3 JANUARY 1972

discussed, among other things, the Helmand region, poppies, the need for Helmand irrigation rehabilitation, the existing infrastructure in support of cotton as a cash crop and Food-for-Work.

We were told that Food-for-Work had changed its policy of support for large scale projects and now supported only very limited groups of workers. This information came up in the context of a discussion of a proposal to begin the use hand labor for the cleaning of some of the ditches, canals and drains in the Helmand irrigation system. Eng. Jawed feels certain that FFW would support such an activity if initial administrative funds were available.

S-10.7 LATERAL IN SHAMALAN: VIABLE START-UP ACTIVITY

The following is a narrative of my daily observations, some historical notes and several suggestions for work that can be done with limited funding...specifically the use of hand labor to clean the S-10.7 Lateral.

17 OCTOBER: SHAMALAN CANAL AND S-10.7 LATERAL:

The S-10.7 Lateral in Shamalan would make an ideal pilot project in the use of hand labor in the rehabilitation of the Helmand irrigation system (see Map No. 2, "Shamalan Land Development and Photos No. 31 - 40). This lateral is a mid-size canal that follows the desert escarpment along the west side of the Shamalan region. The S-10.7 Lateral has exclusively served most of the upper Shamalan, down to the Aynak area, since the early 1980's when the S-10.7 diversion structure on the main Shamalan canal was closed. It is not at all clear why this section of the Shamalan Canal was closed and why the Russian-built lateral was constructed to provide water for the central and lower Shamalan. Apparently it was a security measure in response to active local mujahaddin commanders. The Russian lateral joins the Shamalan Canal at Aynak. This section of the Shamalan canal between the S-10.7 Lateral diversion structure and where the Russian Lateral joins the Shamalan has not been generally used for irrigation during some 15 years, with exceptions. In certain places there appears to be some drainage water seeping into the canal which is then utilized for limited irrigation.

The Shamalan Canal has been breached by the Helmand River in three places (Marked in red on Map No. 2; Photo No. 36) along the unused section. One breach was repaired by Mercy Corps two or three years ago. The other two breaches occurred during 1997 and have not been repaired. If these washed out areas are not repaired in the near future and protected by gabion dikes, this section of the Shamalan Canal will likely become unrepairable and unusable. The expanded flooding each spring will also quickly take out sections of rich farm land in this Helmand flood plain as it did in the area of the repaired section of canal.

As a side note, the repairs with the use of gabions along the Helmand River in recent years has not been successful. The locations in question are at the intake of the Russian- built Shamalan lateral near the Lashkar Gah bridge, at the Shamalan Canal breach repair, note above, and at the diversion dikes across the Helmand River from the Boghra Canal intake structure above Girishk. The gabion baskets have been made quite small, filled with small, river stone and have sunk into the river (faulty foundation work?), are in the process of being covered with silt (not high enough?) or simply failed (too much water?) (Photo No. 68). It does not appear that the gabion work was designed with the Helmand River in flood stage in mind. The gabion work on the west side of Attock bridge in N.W.F.P. built recently to protect the highway from the smaller Kabul River in flood would be a good design example to follow in design.

The S-10.7 Lateral is a very important water source for the Shamalan region. It is roughly 37 km. in length. There is a photo included (Photo No. 40) of this lateral taken from the Marja to Lashkar Gah road just west of Lashkar Gah. It is badly silted up and in need of cleaning. There are two other photos (Photos No. 38 - 39) of the S-10.7 Lateral taken in 1972 at the time of its construction. The S-10.7 Lateral can be closed down during several of the cold months when irrigation is not required, when the cloudy weather occurs and when the limited rain for the region falls. Given its size and depth, this lateral could be cleaned with hand labor. As a pilot project, the cleaning of the S-10.7 Lateral could tell us much about the potential for the use for hand labor in the irrigation system and its effects at the present time. Given the experience in the use of hand labor in the past in Helmand, the potential is very positive.

The Taliban have long requested activities and/or crops that would put more money into the hands of the farmers as an alternative to opium incomes before they begin a serious dialogue with the farmers on opium poppy eradication. In 1997 farm labor was receiving approximately 60 Pakistani rupees per day to work in poppy fields according to local statements. The pilot project could pay a bit more to compete. Taliban reactions to such a project could be noted. Food-for-Work/Kandahar should be contacted again to see if they would participate along with other donors. I am presently in contact with Rotary Club/Colorado exploring the possibility of limited start-up funding from them.

In drainage projects funded by U.S.A.I.D. before the Russian war, hand labor could move between 1 and 2 cubic meters of earth per day digging new drains. The removal of old silt from the lateral, even compacted silt with grass, should be much quicker. The hand tools would be provided by the project. Total costs for this sort of project are not great.

Eng. Jawed and I recently completed a cost estimate for cleaning the 37 km. of the S-10.7 Lateral under HAFO supervision...approximately $90,000. We estimate that

the work could be done by about 500 men in less than 90 days. And this is a generous estimate including the tools, supervision, work, etc.

The village sources of labor should be monitored to see who is participating. Before the war, when crops and incomes were good in the Helmand region, much of the labor came from the mountainous regions to the north of Helmand. Under present conditions, the pattern would likely be more local labor.

In short, this pilot project would be relatively simple to organize, manage and monitor. Relative to the need for the work to be accomplished, this project would not be costly. It does not involve heavy equipment. The lateral's water capacity would perhaps be doubled, providing needed water for the hot season second crop, hopefully more cotton. This project would increase incomes from both crops and the hand labor. It would be a learning exercise for the Taliban, the implementing agency and the local population. It would send a signal to all that there is an interest to restore the irrigation system and that opium poppy must go.

Throughout Shamalan during the 17 October visit, little cotton was observed, perhaps 5 percent of planted fields. Corn was plentiful, some mung bean, and a small concentration of carrots in central Aynak north of Wasteway 2. Before the war, according to my records, this was an area where some Ozbeks and Turkmen were settled, and they were producing vegetables at that time mainly for the Lashkar Gah market. It would have been difficult to estimate how much land was double cropped without a survey.

WASTEWAY 2 is badly damaged, the structures having been shifted by water pressure at some point when all gates were closed through bad management or malice (Photos No. 41 - 42). However, the control gates on the Shamalan Canal apparently still function.

As can be noted in Photos No. 43 - 45, the southern reaches of the Shamalan Canal were very badly silted up but the crops appeared very healthy, mostly corn. The source of irrigation water for southern Shamalan was not clear. Marja wasteway is a possibility. In the entire region, wasteway and drainage water is widely used for irrigation.

DARWISHAN BRIDGE: Two photos are included (Photos No. 46 - 47) taken from different angles at the bridge site. The washed out approach to the bridge from the west has been prepared for a new approach ramp to be constructed with compacted clay, gabion baskets and stone. The chief engineer at the site is Mohd. Payanda, mechanical engineer from the cotton gin.

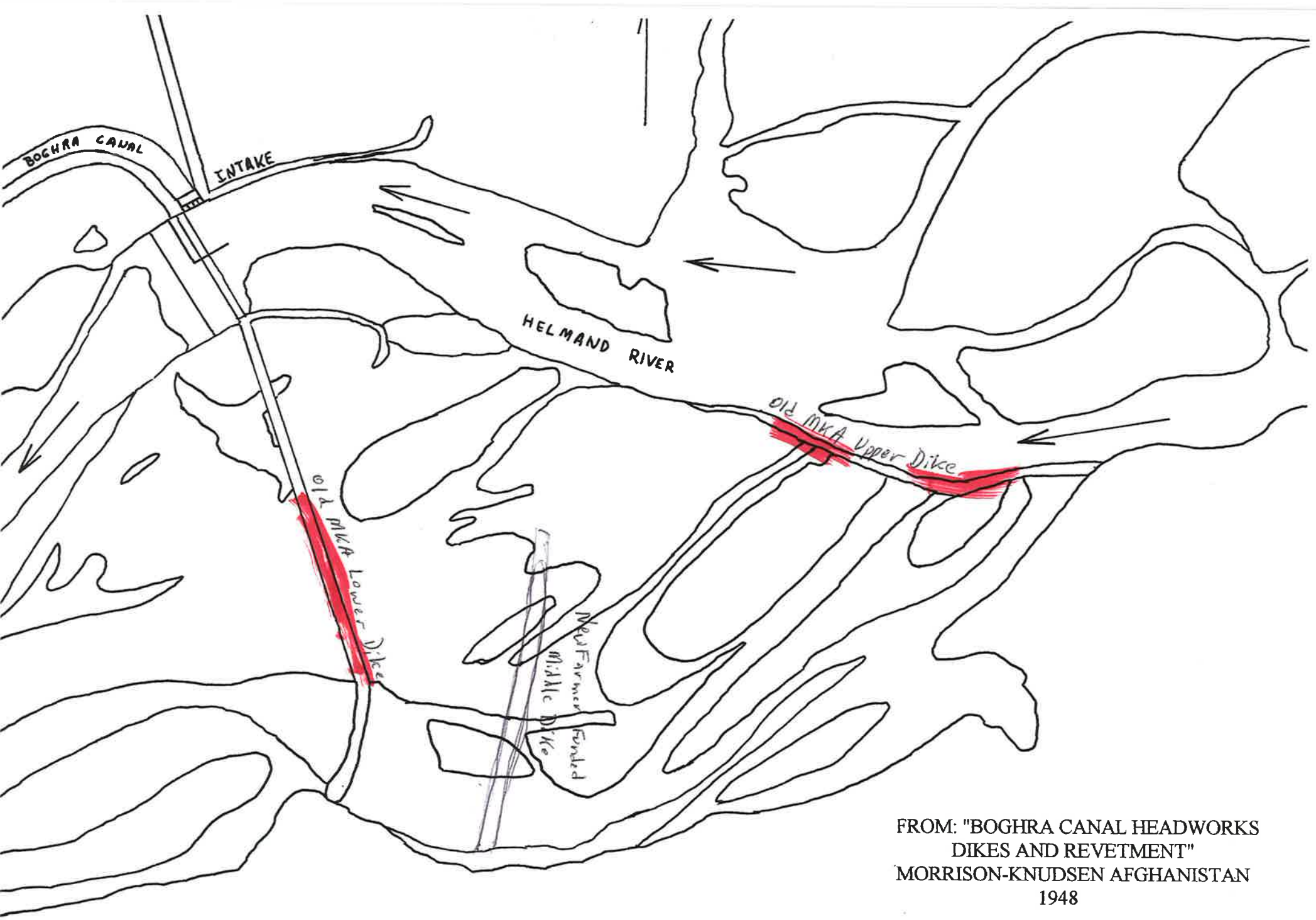
18 OCTOBER: MARJA, SOUTHERN BOGHRA CANAL AND NAD-I-ALI:

We observed very little cotton being grown as a second crop in Marja, perhaps 5 percent of crop land.. This was after the first picking of cotton so it was difficult to judge productivity. The plants appeared healthy.

Along one lateral through central Marja, we noted that considerable cleaning of silt had been done with hand labor (Photo No. 109). We were told that the mirabs (local water masters) of 9 agriculture blocks (originally there were 70 farms per block but there must be more now...divided by inheritance) organized the workers to do the work with an HVA/HCU supervisor. Each house in the blocks provided one laborer. This indicates that the original traditional water organizations still function in collaboration with HVA, and partly explains how this irrigation system still functions after 18 years of limited official attention. And it suggests that it would not be too difficult to mobilize labor for other irrigation system rehabilitation work, especially with pay. Before the war, the agreement between farmers and government was that the government controlled the water to the point it left the main canals after which it was the responsibility of the local water users organizations. Maintenance followed a similar pattern. As you can see in Photos No. 90 - 93 and 109 - 112, there are laterals, ditches and drains that are badly over-grown resulting in inefficient flow. Others have been cleaned. Virtually all the main drains have remained untouched and are clogged. On-farm drains are generally clean. In some areas, the difference between laterals and drains has become somewhat blurred with the farmers using the drains as laterals and the water out of them for irrigation.

NAD-I-ALI had perhaps the largest concentration of cotton of all the areas visited, 20 to 30 percent of cropped land in cotton. The plants, both cotton and corn, looked healthy. We were told that the Boghra intake had been left less clogged with silt and gravel this year after the flood season and that there was more water available for the hot season crop. But at this early time, after only the first cotton picking, there was already grumbling about cotton crop payments at the gin in Lashkar Gah, noted above. This does not sit well with next years cotton crop as a poppy competitor. The cotton production system needs help.

There are numerous photos of structures along the lower Boghra Canal taken in October (Photos No. 94 - 107). This was not an area visited in March. Few structures and gates remain in reasonable working order. Most are damaged or have parts missing but the water still flows. A serious point of potential trouble is at one of the Marja siphons (Photo No. 102) that was seriously damaged by an explosion 3 to 5 years ago. Apparently HCU was doing some cleaning of the Boghra Canal by dragging a large chain between two tractors, one on each side of the canal. This process broke loose a large piece of stems, roots and other debris that floated to the siphon and clogged the entrance. This backed up water in the canal that broke the canal bank and flooded an area in Marja. In desperation, the workers dropped an explosive into the clogged siphon entrance. This cleared the siphon but also blew out



FROM: "BOGHRA CANAL HEADWORKS
DIKES AND REVETMENT"
MORRISON-KNUDSEN AFGHANISTAN
1948

most of the concrete entrance structure. The extent of the damage is not known. The siphon still functions. The canal bank was repaired. Water flows. But the damage should be surveyed during the cold season. The siphon should be repaired. If the siphon fails at some point, the Boghra Canal would breach its banks again and likely flood much of the Marja area before the system could be shut down.

19 OCTOBER: LASHKAR GAH BRIDGE:

The intake for the Russian-built lateral that eventually feeds into the central Shamalan Canal is located about 200 meters north of the Lashkar Gah bridge and has no diversion/intake structure. There has been considerable excavation around this intake to get the water to flow into this badly located lateral producing a constant flow of water down this right bank of the river. The intake was cut into the gravel flood plain that rests somewhat below the level of the adjacent agriculture areas. In recent years, record flooding has pushed into this weak area along the Helmand River, threatening the intake and the approach to the bridge from the west. More excavation has resulted, gravel dikes, concrete slabs and gabion baskets have been placed with questionable or negative results. In the process to protect the bridge, the first concrete beam on the northwest corner of the Lashkar Gah bridge has been damaged/cracked which weakens the structure. This is a very important bridge for the region which connects Chan-i-Anjir, Nad-i-Ali, Marja, Shamalan, Darwishan, Deshu, Garmsar and all areas of south Helmand with the provincial center of Lashkar Gah. This bridge should be repaired. It must not fail. It is a fairly simple repair at present. There appears to be little change in the damage between March and October 1997 (Photos No. 48 - 52).

20 OCTOBER: BOGHRA CANAL AND INTAKE:

Many of the structures along the central and north Boghra Canal were photographed and commented on in my March report. Those photos are included here (Photos No. 53 - 89). Most structures and gates along the Boghra Canal have been damaged, vandalized, broken or removed. Virtually no structure is in designed working order. The two siphons in this northern section, Loy Manda and one further north, Ab Pashak, have had parts of their concrete tunnels excavated out by flood waters coming out of the desert in the spring. The channeling for these washes across the siphons need attention before the siphons are damaged (Photos No. 78 - 79).

There is also one small section of canal wall and service road excavated out by local farmers in an apparent attempt to put desert flood water into the canal during a period of shortage. This is not at a siphon crossing but where the desert surface is above canal water level (Photo No. 77).

There is a portion of service road (left bank, no photo) between the intake and the power generators that was beginning to flake into the canal and in need of repair. This kind of flaking usually results from undercutting by water flow through the canal and can eventually result in a break in the canal wall and/or make transport to the intake difficult.

The Boghra diversion/intake structure has been damaged and vandalized during and after the war. Attempts have been made to repair parts of this important structure mostly at a patch-up quality of work. Two of the intake gates function or are open. Opening or closing these massive gates would be difficult at best without the missing lift mechanisms. The diversion gates function with the original but patched-up lift mechanism although it was hit by Russian artillary fire toward the end of the war (Photos No. 53 - 62).

There have been three diversion dikes built from the left bank of the Helmand River through time in an attempt to keep the river flowing nearer to the right bank where the Boghra Canal intake is located (See Map No. 1, Boghra Canal Headworks). Two were built by Morrison-Knutson Afghanistan in the 1940's with heavy rock bases. The central dike was shaped with river gravel by an HCU bulldozer in 1996 with villager financing (Photos No. 72 - 74). All have failed. The red markings on the map indicate the approximate locations of failure. The lower MKA dike was poorly repaired on several occasions in the 1990's using small gabion baskets and some U.N. funding (Photos No. 63 - 68). Apparently no attempt has been made to repait the upper MKA dike (Photos No. 70 - 71).

Major spring flooding occurred in the Helmand River in the late 1980's and/or early 1990's. The river channel began to change its course taking out some agriculture land along the left bank and breaching the original MKA dikes. At one point in the 1990's, the Boghra Canal intake was closed with shifting gravel and silt. It was re-opened but the flow through the system has been reduced through years of limited or no maintenance. The overall situation came to the attention of U.S.A.I.D. in the early1990's when development projects for Afghanistan were being administered from Pakistan. Information was collected but security constraints blocked any serious action.

Some cleaning of the river channel leading to the Boghra intake has continued in recent years by HCU personnel and equipment with villager and limited donor support. The Helmand River has been cooperating. On 20 October 1997, the Boghra Canal intake structure watchman, Mohd. Amin who lives at the site, indicated that regional farmers had recently visited the structure and stated an intention of having HVA/HCU close the gates at the Kajaki dam for a few days and pay to have an HCU bulldozer clear the river approach to the intake. He was not aware of the Mercy Corp intention to do this work. In my discussion two days earlier with Shaikh Ahmad (said to be in charge of HCU construction activities) in Lashkar Gah, he also was not aware of the Mercy Corp plan for action at the intake. On your visit to the site, the watchman indicated that the farmers had not planned to work on the intake and he

was working with the survey crews in preparation for the work. I doubt that Eng. Jawed had misunderstood the watchman's initial story of the farmers visit and intentions. It fits with what the farmers have been willing to do in the past. The farmers likely backed away from involvement when they realized that Mercy Corp was to do the work.

The region's farmers have and will participate in the irrigation system's rehabilitation as long as they see the action as absolutely beneficial. In discussions held in HVA in March 97, representatives from areas like Nad-i-Ali, Marja and Shamalan said that their areas would participate and contribute to this rehabilitation. Coordinating their energies and participation with those of other donors is possible. The tribal/political/social structure in the areas irrigated by the Boghra Canal appears to be functioning in much the same manner as it did before the war. It is a matter of initiating a continuous dialogue with these groups, with the Taliban and identifying priority rehabilitation actions.

Apparently the 1997 crop seasons were good due to an increased flow of water into the Boghra irrigation system. But the 1996 hot season crop, including cotton, was well below expectations because of limited water flow. The apparent difference was the result of shifts in Helmand River channeling at the Boghra intake. With the work at the intake this year, we should expect good crops for the 1998 seasons. Hopefully cotton will be one of the main crops.

But the canals, laterals, and drains remain clogged with years of silt and plant growth, reducing water flow, according to one estimate, to some 50 percent of designed capacity. Virtually all the gates, structures and channels need attention. This is a big job that will take years to complete and a lot of funding. But it can be started, with effect, with the limited funding available if the funding can be coordinated and the activities focused, as I have outlined in this and my previous proposals.

SUGGESTED MAIN POINTS FOR FOCUS:

1. Focus on areas irrigated by the Boghra Canal where opium is not a traditional crop but where now as much as 20 to 30 percent of crop land is planted with poppy during the cool weather crop season in some areas, e.g., Nad-i-Ali.

This regional focus would be for overall impact on opium production as well as having a greater potential for success. The traditional opium poppy growing area of Sangin, not irrigated by the Boghra Canal, had some 6,317 hectares of crop land before the war. The three major areas irrigated by the Boghra Canal of Nad-i-Ali, Marja and Shamalan had 11,432 hec., 8961 hec. and 14,768 hec. respectively or 35,161 hec. total. If Sangin had 50 percent of its land in poppy and the Boghra areas

had 20 percent of their land in poppy, then the total difference in land in poppy would be 3158 hec. vs. 7031 hec. Potential impact would be greater in terms of land cultivated in poppy, and potential for success would be greater by focusing on areas where poppy is not a traditional crop. Before the war, there was an agreement between the U.S. government, the Afghan governments and the farmers that narcotics would not be grown on land irrigated by the U.S.-funded irrigation system, i.e., the Boghra Canal. Sangin was considered an "out of Project" area.

2. Focus on cotton as the cash crop in competition with poppy. Support the cotton gin with funding for a credit system for fertilizer.

The cotton gin and the farmers are in need of technical assistance. The irrigation and drainage system and the cotton gin(s) are in need of help with rehabilitation. The cotton price paid at the gin must be based on the international market price. Great care should be taken before any new cotton seed is brought into the region to replace the present variety which has high value on the international market.

3. Focus on bringing the farmers into a coordinated effort with other donors in the rehabilitation of the Boghra irrigation system.

It is to their advantage to participate. To some extent, the farmers should participate, contribute to every rehabilitation effort initiated in this irrigation system. They should be involved in the planning for the rehabilitation work and in the selection of key projects. This will be a time consuming task but it is their irrigation system and they will benefit by becoming part of the group effort to rehabilitate it.

Along with the farmers' contribution to the rehabilitation effort, paid hand labor should be used when ever possible in this work. This, along with the expanded cotton crop, will put cash into the hands of the farmers, again, in competition with the income from poppy.

4. Focus on coordinating the efforts of the various donors in the region.

Outside donors, NGOs and HVA/HCU should have all efforts coordinated. We must remember that the NGO's are in competition for the limited funding available and that HVA/HCU has virtually no funds or salaries, limited equipment in need of spare parts and few technical staff. At the moment, there appears to be limited coordinated effort, limited focus on priorities (that have not been identified) and very limited communications between the involved parties.

The present catch phrase for Afghanistan is "humanitarian aid" which absorbs sizable sums of money with little long term effect. Humanitarian aid apparently does not include the rehabilitation of the Helmand irrigation system or support for infrastructure facilities like the cotton gin. But these are the bases of the Helmand economic system that allow the local population to survive in this desert environment....very humanitarian. The deterioration of these agriculture facilities and institutions has allowed the international narcotics trade to establish a foothold in the region by responding to the needs of the local population for a viable economy. This can be changed. This proposed approach to make the change will work.

I hope this has not been too long and that you have had time to read it. Please share this letter and/or its contents with those others who may be interested, e.g., Mr. Geddes or Mr. Arlacchi, and especially the British aid representative in their embassy. See you in the spring. If there are any questions, let me know.

Best wishes,

Richard B. Scott

TEL:
FAX:
e-mail:

1. Chaman to Kandahar highway 26 March 97

2. Gas station on Chaman to Kandahar highway 26 March 97

3. Kandahar Silo 23 March 97

4. Helping Afghan Farmers Organization (HAFO) Vocational Training Center under construction in Kandahar 21 Oct 97

5. Kandahar to Herat highway at Lashkar Gah turn-off, 17 March 97

6. Kandahar to Herat highway broken road surface 23 March 97

7. Kandahar to Herat highway broken road surface, close-up.
23 March 97

8. Kandahar to Herat highway broken road surface 20 Oct 97

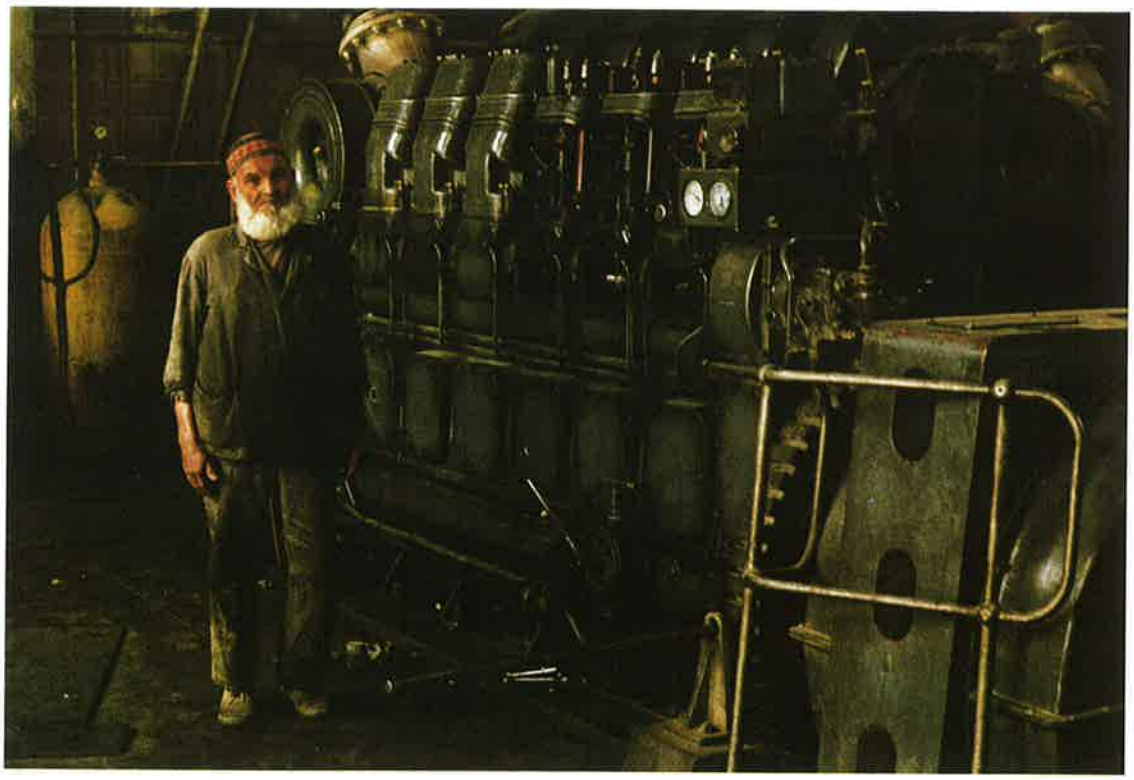
9. Main highway to Lashkar Gah road with power line poles on side. 23 March 97 Gravel surface

10. Power line poles along Lashkar Gah road. 23 March 97

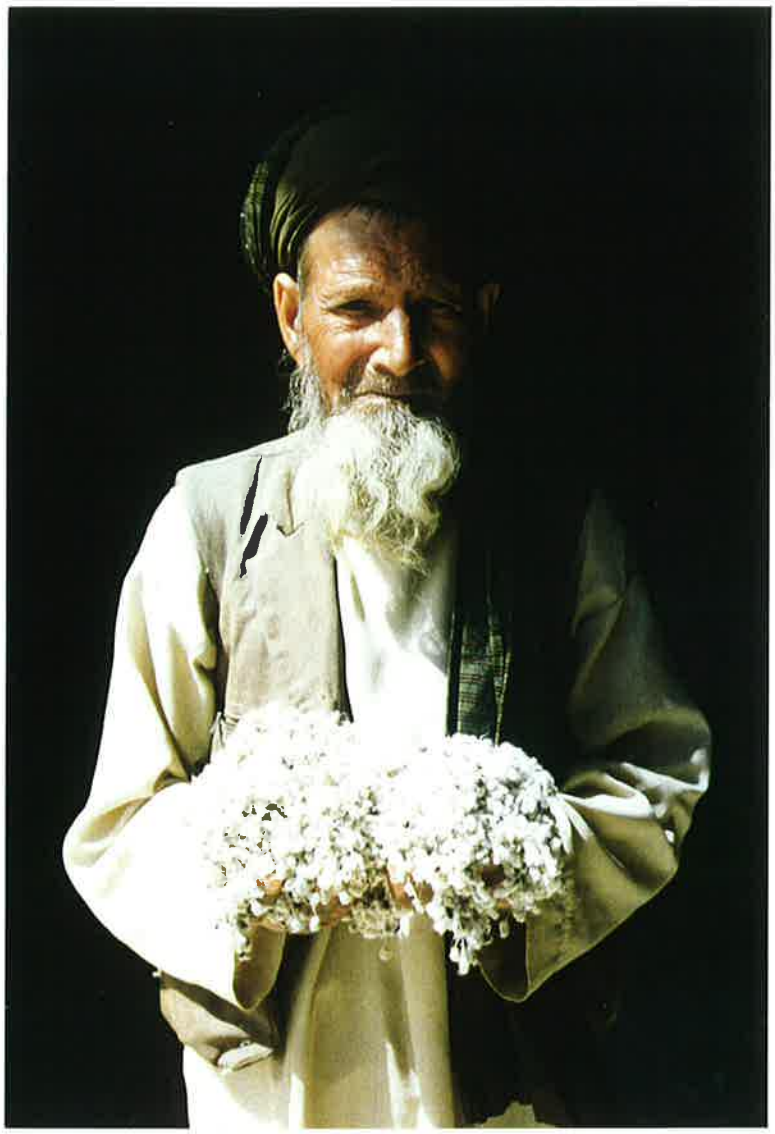
11. Lashkar Gah cotton gin, 1996 cotton crop. 22 March 97
Cut power lines on right.

12. Lashkar Gah cotton gin, 1996 cotton crop. 22 March 97

13. Lashkar Gah cotton gin buildings. 22 March 97



14. Lashkar Gah cotton gin generator under repair. This is the source of power for the gin. 22 March 97

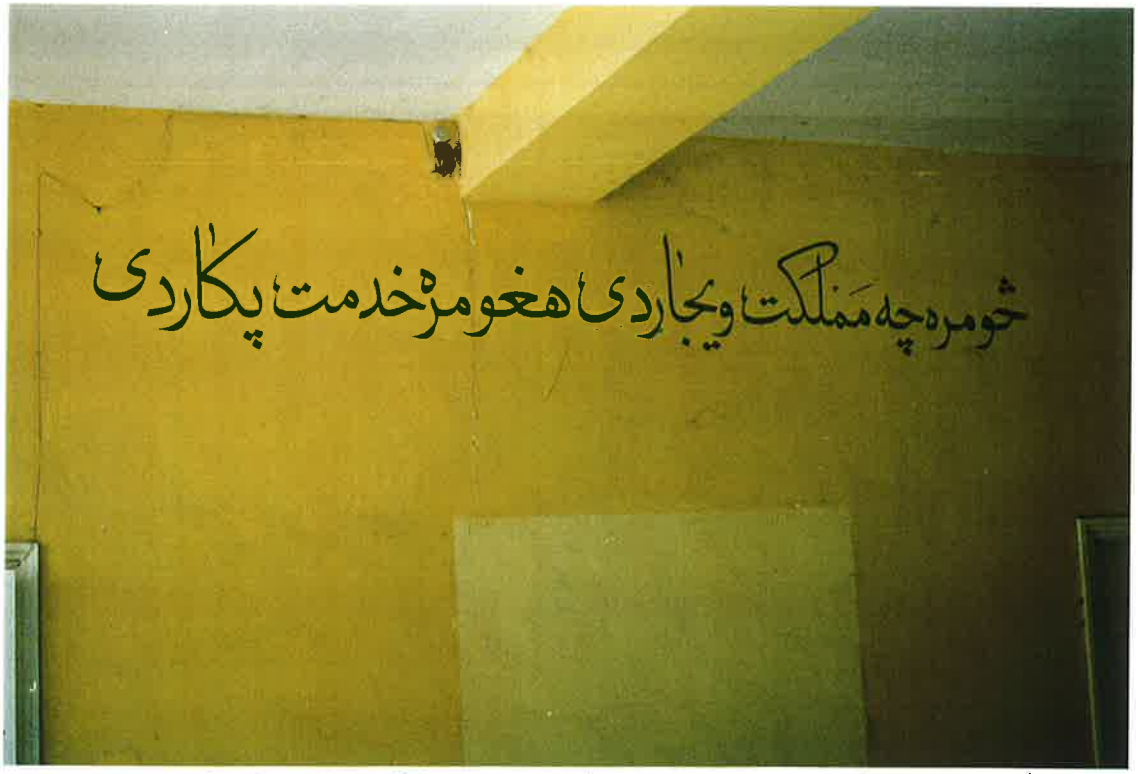


15. Lashkar Gah cotton gin seeds from the 1996 crop. 22 March 97.

16. HAVA office building in need of repair. 20 March 97

17. Engineering section wing of HAVA building. With windows blown. 20 March 97

18. Damaged office in HAVA building. 20 March 97



19. (Roughly) The need for service to your country is measured by the extent of its destruction, HAVA building, Lashkar Gah. 20 March 97

20, HAVA building archives of original construction drawings for irrigation system. 20 March 97

21. HAVA building Engineering Office 20 March 97

22. HAVA building Engineering Office drawing room. 20 March 97

23. Old USAID staff house in Lashkar Gah. Note dead pine trees.
20 March 97

24. Livestock experimental station in Bolan, near Lashkar Gah.
Poppy field in foreground. 21 March 97

25. Chan-i-Anjir wash
suspension bridge.
18 March 97

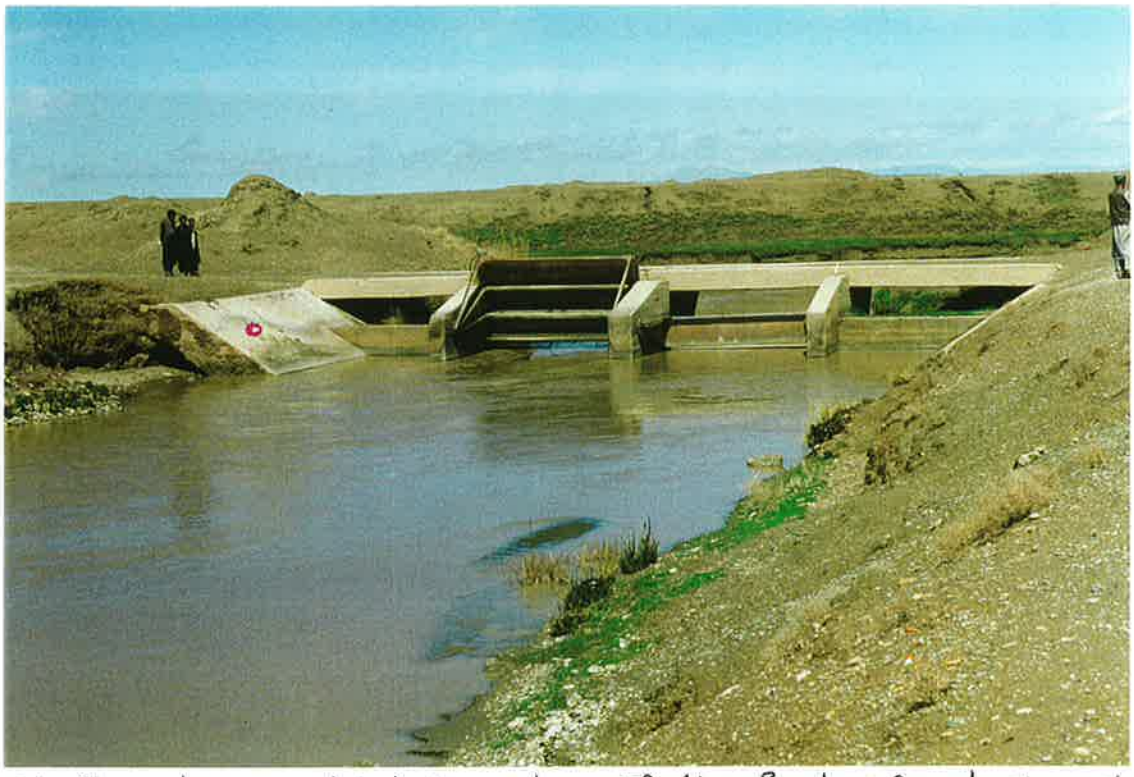
26. Chan-i-Anjir wash
suspension bridge
20 Oct 97
Repair Funded by U.N.

27. Chan-i-Anjir equipment yard, 18 March 97

28. Chan-i-Anjir equipment yard, 18 March 97

29. Spare parts warehouse at Chan-i-Anjir equipment yard. 18 March 97

30. Said to be east european equipment brought in under the Russians, Chan-i-Anjir equipment yard. 18 March 97



31. Shamalan canal intake gates off the Boghra Canal. One gate Functions. Note washout on left wing. 18 March 97

32, Shamalan Canal looking north at 5-10.7 lateral intake. Note silting, center. 21 March 97

33. Diversion structure for S-10.7 lateral on the Shamalan canal. Gates closed. Lift mechanism not functioning. 21 March 97

34. Shamalan canal looking south at the S-10.7 lateral intake. Note silting. 21 March 97

35. Section of the unused Shamalan Canal below the S-10.7 intake. 17 March 97

36. Helmand River (on right) at wash out of Shamalan canal just below Waste way #1. 17 March 97

37. The gate for the S-10.7 lateral off the Shamalan canal. Note washed out wings. The taxi and tractor are on the Shamalan canal service road. 21 March 97

38. The S-10.7 lateral under construction. The Shamalan Canal is on the left. 1972

39. The S-10.7 lateral under construction. 1972

40. The S-10.7 lateral at the Lashkar Gah to Marja road in Bolan, The green grass is on silt. 20 Oct 97

41. Damaged diversion gates on Shamalan canal at Waste way # 2.
17 Oct 97

42. Damaged diversion gates on Shamalan canal at Waste way #2.
17 Oct 97

43. Silted lower Shamalan canal at drop structure and old mill.
17 Oct 97

44. Silted lower Shamalan Canal. 17 Oct 97