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PVO SUPPORT PROJECT
COOPERATIVE AGREEMENT #306 - 0211 - A - 00 - 0961 - 00

MERCY CORPS INTERNATIONAL
AGRICULTURAL ASSISTANCE FOR SOUTHWEST AFGHANISTAN

QUARTERLY REPORT
JANUARY 1, - MARCH 31, 1993

MERCY CORPS INTERNATIONAL
House 10 Arbab Karam Khan Road
P.O. Box 314
Quetta, Pakistan
Telephone: 40960/40905
Fax: 43019

Don Bradford, MCI Country Director
Brian Walker, MCI AG Program Coordinator

Prepared by: ✓ Mohd Lal - Cereal Grains Coordinator
Abdul Hai - Horticulture Coordinator
Jan Mohd - Engineering Coordinator
Dr. Shah Mohd - Animal Health Coordinator

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SUMMARY

This quarter under review, January 1 to March 31, 1993, has continued to be a productive and progressive period for the PVO Cooperative Agreement. One piece of personal satisfaction is the fact that this report has been written by the various Afghan Program Coordinators. For the first time, they have been able to personally inform the donor of their work and their accomplishments.

Not reported in this review are USAID-related activities which are outside of the rural infrastructure development of the grant. During this quarter MCI, with Ronco, provided emergency food to four districts in Uruzgan Province, and with WFP/Food for Peace, MCI undertook feeding efforts in Kandahar Province. Both of these USAID-related activities will be reported on when all the distribution is completed and the documentation finalized.

MCI management energy and time has been spent on the required USAID Phase Out Plan. During this quarter O/AID/REP requested MCI to complete its detailed phase out plan with budget, personnel and implementation schedules. One draft of each has been provided and at the present time those drafts are being reworked in response to O/AID/REP questions and suggestions.

MCI's wheat seed production program has been very active in the past three months. With 250 farmers, the extension staff have been traveling throughout the southwest, conducting training sessions and monitoring the efforts of the participants. In addition, MCI has been working with various Afghan NGOs who have provided farmers with UNDP seed and fertilizer.

The horticulture section has been working with fruit tree distribution, budding and nursery development. Also, during this quarter the first of the IPM (Integrated Pest Management) programs has begun. MCI started the first of its training programs for farmers and NGO extension staff, and has begun selling backpack sprayers.

The engineering works have continued despite unusual early rains, political problems, road blocks and open warfare. The intake for the irrigation feeder system on the lower Helmand has been completed, as well as canal protection throughout the delivery system. Many smaller systems have been cleaned and realigned and several traditional systems have been repaired.

Animal health is still a strong program, with BVW training remaining on schedule and the first refresher course completed in this quarter. The percentage of trained BVWs actively working has increased and drug sales to BVWs has also increased.

All in all, the grant is meeting the goals and objectives of the rehabilitation effort. MCI continues to be satisfied with the work and the commitment of the Afghan and international staff. While the phase out process is an unwanted burden, it is necessary and proving to be a tool for fine tuning the program as it nears completion.

As the donor (USAID-O/AID/REP) goes through the process of closing PVO support agreements, NGO grants and for profit contracts, it is sincerely hoped that the the phase out task does not over shadow or divert attention from the real issue; that of Afghan relief and rehabilitation. As the magic date for stoppage of all work (April, 1994) under the current phase of USAID assistance to Afghanistan draws near, the donor can not afford to overlook the task of evaluating good development and bad development, good NGO management and bad NGO management. The donor has determined what is best for the future of Afghanistan, and has framed a network strategy with areas of implementation importance. It is hoped that the donor's evaluation process of the phase will result in their seeking cooperation and strategy planning for the next phase from those NGOs who have demonstrated an ability to respond to the felt needs of the beneficiaries.

CEREAL GRAINS

Report Period: 1 Jan 93 to 31 March 93

Provinces and Districts under program:

Kandahar	Shiga, Dand, Maiwand, Ghorak
Helmand	Bost, Nadali, Nahreseraj, Nawzad, Nawzad, Nawibarakzai, Darwishan
Uruzgan	Dehrawood, Trinkot, Chora
Zabul	Qala, Atghar, Shenkai, Shomalzai, Shahjoi, Shahresafa, Arghandab
Farah	Anar Dara, Khak Safid, Kala Ka
Nimroz	Kang, Charborjak, Zaranj
Herat	Shendand

Prepared by: Engineer Mohd Lal, MCI Cereal Grains Coordinator

SUMMARY

The information in this section of the quarterly report is for the edification of the O/AID/REP staff and MCI head office folks. The wheat seed production work is not using USAID funds in this cycle; commodities and inputs are provided by UNDP. MCI staff are acting as trainers and monitors for Afghan NGOs who are seeking the opportunity to receive direct funding from UN agencies. MCI has taken the opportunity to provide inputs to seed producer farmers with whom we have worked in the past. With 250 farmers working directly with MCI and USAID inputs and ~~473~~ farmers working with various Afghan NGOs, the wheat seed production effort in southwest Afghanistan has expanded greatly in this growing season.

MCI staff are holding workshops or training sessions for the seed farmers and the NGO's extension staff. The training includes, land leveling, improved water use, field drainage, roughing, weeding, pest and disease control, and appropriate fertilizer use. It goes without say that these are one off attempts to introduce the concept of seed production and crop management, but we feel it is a strong beginning, to be followed up with those farmers which demonstrate the greatest promise as seed growers.

ON-GOING PROJECTS

1. KANDAHAR

In Kandahar province three Afghan NGO's are working with improved seed wheat and fertilizer distribution. The NGOs are ARR, RIFRA and SCS, all working in different districts. The MCI monitor for Kandahar province is Said Abdul Rassul, a graduate of the faculty of Agriculture.

SCS is working in Ghorak district, with 312 farmers. The participant farmers had not received improved varieties in the past. The extension training sessions for these farmers included information about the new seed, the need for land leveling, irrigation timing and fertilizer application. The farmers are aware of the problems of the traditional varieties, and are looking at the new seed for its resistance to pest and disease problems, as well as problems with lodging as a result of wind. One SCS extension worker attended MCI training sessions.

RIFRA (the governor of Kandahar, Gul Ahga, is head of this NGO) is working in Shiga district. They have provided seed and fertilizer to 200 farmers. Again, this is the first distribution of improved seed to these farmers. Because the Afghan NGO provided very little extension support to the farmers, MCI monitors found cases of seeding rating that matched the traditional varieties. In some cases, as much as 40 kg per jerib was seeded, double the necessary amount. The farmers in the area face a major problem with water. Most of the irrigation supply systems have been destroyed and repair work has not begun.

Much of the wheat is stressed due to lack of water. One RIFRA extension worker attended MCI training sessions.

ARR is working in Dand district, with 199 farmers. Dand district is one of several Kandahar districts that have received extensive rehabilitation inputs over the past three years. Many of the farmers in the district have had improved seed in the past. However, MCI's extension staff have recorded continued problems with cultivation in the district. Many farmers have never been shown the planting requirements of the improved seed as compared with the traditional seed. Irrigation problems, primarily drainage, are very evident in the Dand area. MCI held two farmers training sessions in this area and twenty ARR farmers and 2 ARR extension workers attended.

2. HELMAND

In five districts of Helmand province, MCI is working with 5 different Afghan NGOs, as well as continuing to work with selected seed producer farmers ourselves. MCI has two full time cereal grain extension workers in Helmand province, Mahmood Nazari and Abdul Waheed, both Agriculture faculty graduates.

HRO is working in Bost, Nahr-I-Saraj and Nawzad districts, with a total of 636 farmers. To date MCI field staff have made 3 monitoring visits to these districts and conducted training session on each visit. Fifty HRO farmers and four HRO extension workers have attended the training sessions. As with farmers in Kandahar, irrigation and drainage are their greatest problem. Traditional canals and karez have been damaged and remain unrepaired. As the major (HVA scheme) canals are repaired and brought on line, the smaller feeder systems are still silted or broken. The dramatic investments in the retrieval of the HVA systems does little for the farmer without follow up on the feeder systems. To date, MCI, with USAID funds are the primary agency assisting in self help rehabilitation of the smaller irrigations systems.

RIFRA is working in Bost district only, with 80 farmers. Twenty of these farmers and two RIFRA extension staff have attended MCI training sessions.

ARO and SWAFO are working in Nadali district with a total of 588 farmers with four extension staff. To date forty farmers have attended training sessions.

ARR is working in Nawa Baragzi district with 200 farmers and two extension staff. They have been able to gather ten farmers for seed production training sessions.

3. URUZGAN

MCI has two monitoring staff in this province: Sardar Mohd and Mohd Rahim.

Four Afghan NGOs are working in the Dehrawod and Trinkot districts and MCI is working in Khas Uruzgan and Chora districts. A total of 561 farmers are receiving inputs and training in all four districts. MCI held a two day training session with 26 NGO farmers and three extension workers in attendance. During this quarter, unlike lower altitude provinces, the winter wheat was under snow most of the time. The MCI staff traveled by horse back, as the roads were closed by heavy drifts. Our monitors were able to visit each farmer once during the quarter, plus conduct the training session in Chora district for all participants.

ARO is working in Dehrawod district with 183 farmers and one extension worker.

INA is working in Dehrawod district with 99 farmers and one extension staff.

SWAFO is working in Trinkot district with 199 farmers and one extension worker.

BURC is working in Kejran district with 71 farmers and with 2 extension workers. They were unable to attend field training because of snow on the main pass and because the main bridge on the upper Helmand is out. Also, let us not forget that Hazzar do not travel well in Pushtun areas.

MCI is working in Khas Uruzgan and Chora districts with farmers and two extension staff.

4. ZABUL

MCI has two monitor cum extension staff working in Zabul province, Agha Jon and Khan Mir, both Agriculture Faculty graduates. These two staff members are looking after three Afghan NGOs and MCI farmers. This season MCI is working with 50 seed producers and 112 general production farmers. While training of farmers and NGO extension workers was carried out in Zabul, the participation was limited due to severe weather conditions in the mountain regions and the cancellation and reschedule of training sessions in this area of extreme communication limitations.

ARRA is working with 801 farmers in Qalat district and 100 farmers in Arghandab district. They have three extension staff in the field, all of whom have attended MCI training sessions. Of the farmers 30 have attended field day training sessions.

SWAFO is working with 160 farmers in Shajoi district with one extension workers. To date 6 farmers have attended training sessions.

SCS with working in Shinkai, Atghar and Shamoliz districts with up to 600 farmers and three extension staff. To date 30 farmers and the three field staff have attended training sessions.

5. FARAH

Abdul Waheed, an Agriculture Faculty graduate, is the MCI extension staff for both Farah and Nimroz provinces.

MCI is working with two Afghan NGOs in Farah province. This is MCI's first direct implementation in Farah and it is the first time MCI field staff have carried out monitoring and evaluation in this area. The entire province is suffering from lack of irrigation water and lack of road repair. Very little of the available development assistance has reached this province.

IRRA is working in Anar Dara, Khak I Safid and Shindand districts with a total of 300 farmers. They have only three extension staff in the field at this time. 32 of their farmers attended MCI training sessions and their three extension staff attended.

VARA is working in Kalaka district with 65 farmers and one extension staff. Twelve farmers and the extension worker attended the MCI training session.

6. NIMROZ

This province too is a new experience for MCI staff. By working with VARA in three districts, MCI is beginning to understand the needs of this desert region. Nimroz has received almost no inputs to date from any assistance agency.

VARA is working in Zarange, Kang and Char Borjak districts with 167 farmers and four extension staff. Forty two farmers and 4 extension workers have attended MCI training sessions.

**MCI WHEAT SEED PRODUCTION
FARMERS TRAINING IN SEED PRODUCTION.
1993**

PROVINCE	DISTRICT	NO. OF SEED FARMERS TRAINED	GENERAL FARMERS	EXTENSION WORKERS
KANDAHAR	ARGHISTAN		40	1
	DAND	50	26	2
	MAIWAND	50	22	2
	PANJWAI	50	35	2
ZABUL	DAICHOPAN		52	1
	MIZAN		40	1
	SHAHRI SAFA	50	20	2
URUZGAN	KHAS UROZGAN		45	1
	CHORA		35	1
HELMAND	DARWISHAN	50	20	2
TOTAL		250	335	15

MCI SEED PRODUCTION TRAINING FOR AFGHAN N.G.O.

PROVINCE	DISTRICT	NGO	NO. OF FARMERS	FARMERS TRAINS	NGO EXT. WORKER
KANDAHAR	DAND GHORAK SHIGA	ARR	199	20	2
		SCS	312	20	1
		RIFRA	200	22	1
HELMAND	BOST	HRO	180	10	2
		RIFRA	80	20	2
	NADALI	ARO	388	20	2
		SWAFO	200	20	2
	NAHR-I-SARAJ NAWZAD NAWA BARAGZAI	HRO	260	20	1
		HRO	196	20	1
ARR		200	10	2	
URUZGAN	DEHRAWOD	ARO	183	8	1
		INA	99	8	1
	TRINKOT KEJLAN	SWAFO	199	10	1
		BURC	71	N/A	N/A
ZABUL	QALAT ARGHANDAB	ARRA	700	20	2
		ARRA	100	10	1
	SHAJOI SHINKAI ATGHAR SHAMOLZI	SWAFO	160	6	1
		SCS	217	10	1
		SCS	255	10	1
FARAH	ANAR DARA KHAK-I-SAFID KALAKA SHINDAND	IRRA	100	12	1
		IRRA	100	12	1
		VARA	65	12	1
		IRRA	100	8	1
NIMROZ	ZARANGE KANG CHAR BORJAK	VARA	69	12	2
		VARA	50	12	1
		VARA	48	18	1
TOTAL			4731	360	34

HORTICULTURE

Report Period: 1 Jan 93 to 31 March 93

Provinces and Districts under program:

Kandahar Maiwand, Arghandab, Panjwae, Dand

Helmand Nawzad, Grishk, Lashkergah

Zabul Shahresafa

Prepared by: Engineer A. Hai, MCI Horticulture Coordinator

SUMMARY

The MCI Horticulture program was running successfully in this second quarter of the current year. Horticultural activities carried out in South West Afghanistan included IPM (Integrated Pest Management), Back Pack Sprayers sales, Root Stock Budding, Pruning, Salt Bush Demonstration Program, training of extension workers in IPM, and training of farmers and gardeners by MCI extension workers in general improved orchard management and pest control.

COMPLETED ACTIVITIES

1. KANDAHAR

A. Maiwand District

Maiwand is a major grape producer. MCI'S (IPM) used 30 gardens in different villages to demonstrate the spraying of lime sulphur for controlling powdery mildew. Lime sulphur making and spraying methods were demonstrated by Mr. Mohd Ismael, the MCI District extension worker, and 64 back sprayers were sold for 20,000 Afg/each. The Maiwand district MCI Nursery sold 726 grape vines (100 Afg) and 543 pomegranate saplings (100 Afg) to local growers.

B. Arghandab District

MCI's Integrated Pest Management program was a success in Arghandab. Grape growers and pomegranates growers were very interested in this program. Mr. Mehrabuddin, MCI extension worker, is responsible for the IPM program in Arghandab district. Under this program grape and pomegranate growers were given extension information about powdery mildew, aphids, how to prune trees, how to bud the saplings, and demonstrations on the spraying of lime sulphur. 59 back sprayers were sold at 20,000 Afg/each. From 9th to 15th Jan, 406 different kinds of fruit trees were pruned by MCI extension workers. 80% of the 7,588 saplings budded were a success. Lack of adequate water was the cause of budding failure in the remaining 20%.

C. Dand District

MCI extensions workers Rahmatullah and Mr. Khalid are responsible for horticulture extension training in this district. During the quarter under review, demonstrations in fruit tree pruning, root stock budding and IPM were held. Fifty grape growers were given individual training in powdery mildew control with lime sulphur. In addition, a tobacco/soap mixture was demonstrated for aphid control. 129 back pack sprayers were sold during the course sessions. Two improved grape vine trellis plots were constructed on vineyards of one jerib each (half an acre). Three hundred apple (mm 106) sapling were planted in a layering system in a private holder nursery. Eighty five pruning demonstrations were held in private orchards. In Jan 1993 almost 85 different kinds of trees were pruned during demonstrations.

D. Panjwai District

Panjwai is major grape producing district in Kandahar province. The extension staff discovered a massive problem with powdery mildew in most of the vineyards. Lime Sulphur demonstrations were held to show the control factor, with a low cost, non-toxic substance. One hundred and fifty farmers received training in these sessions. The use of back pack sprayers, their care and maintenance, was part of the training session. In addition, budding and pruning demonstrations were held.

The Panjwai nursery sold 250 vine stock (at 100 Afs each) and 310 pomegranate saplings (at 50 Afs each). In addition, 700 apple saplings (mm 106) were added to the nursery.

Approximately 90% of the apricot budding in this nursery was a success.

2. ZABUL

A. Shahrifafa District

MCI has a Horticulture program in Shahrifafa. 200 of (MM 106) apple root stock, 7,000 saplings of TOOR KOLO apples, 2,500 saplings of SHEEN KOLO apples, 1,000 saplings of Apricot, 1,200 saplings of Peaches, and 2,600 Plum saplings were distributed.

MCI has a salt bush demonstration program in Shahrifafa district with 500 salt bush established on 26 March.

Plans to send 100 back sprayers to Shahrifafa district were dropped because of poor security on the main road.

3. HELMAND

A. Lashkargah

400 of (MM 106) apple root stock were planted in a private nursery. Because of the late arrival of root stock from FAO, general distribution to farmers was not possible.

4. QUETTA

In Quetta MCI had an integrated pest management course for 11 MCI extension workers from 17 Jan 1993 to 31 Jan 1993. The course was presented by professor Pir Mohd Sidiqi, Entomologist.

On Jan 31 and Feb 1, 1994 MCI and UNDP held an IPM workshop for Afghan NGO'S. The workshop resulted in a set of pesticide guidelines for safe use and farmer training.

UNCOMPLETED ACTIVITIES

MCI was unable to send backpack sprayers to Zabul and Uruzgan, due to poor security conditions along the the main road. *

Some orchard root stock designed for direct distribution to farmers was so late in arriving from FAO, the stock had to be planted in local private nurseries in Helmand province. MCI staff will bud this stock in the near future. ✓

**M.C.I ORCHARD/VINEYARD IPM PROGRAM
IN FEBRUARY AND MARCH 1993**

PROVINCE	DISTRICT	EXTENSION WORKER	NO. OF GROWERS TRAINED	TYPES OF CROPS	TYPES OF PEST OR DISEASE	TYPES OF TREATMENTS	BACK SPRAYER SOLD	REMARKS
KANDAHAR	ARGHANDAB	MIHRABUDIN M. SADIQ	160	GRAPE	POWDERY MILDEW	LIME SULFUR	59	
	DAND	RAHMATULLAH KHALID	50	GRAPE	POWDERY MILDEW	LIME SULFUR	129	
	PANJWAI	OBADULLAH M. ISAH	150	GRAPE	POWDERY MILDEW	LIME SULFUR	112	
	MAIWAND	M. ISMAIL	30	GRAPE	POWDERY MILDEW	LIME SULFUR	64	
TOTAL			390				364	

**M.C.I ROOT STOCK AND SAPLING DISTRIBUTION IN
JAN/FEB/MARCH, 1993**

PROVINCE	DISTRICT	GENERAL DISTRIBUTION ROOT STOCK AND SAPLING FROM F.A.O						DISTRIBUTION SAPLING FROM MCI NURSERY BY COST			
		ROOT STOCK MM 106	APPLE		APRICOT	PEACH	PLUM	GRAPE-VINE	EACH	POMEGRAN-ATE	EACH
			TOOR KOLO	SHEEN KOLO							
KANDAHAR	DAND	300 IN PRIVATE NURSERY									
	ARGHANDAB						250	100	316	50	
	PANJWAI	700 IN MCI NURSERY									
	MAIWAND						726	100	543	100	
ZABUL	SHAHRI SAFA	200 IN PRIVATE NURSERY	7000	2500	1000	1200	2600				
HELMAND	LASHKARGAH	400 IN PRIVATE NURSERY									
	GRISHK	400 IN PRIVATE NURSERY									
	TOTAL	2000	7000	2500	1000	1200	2600	976		859	

ENGINEERING

Report Period: 1 Jan 93 to 31 March 93

Provinces and Districts under program:

Kandahar Arghistan, Dand, Daman, Arghandab, Panjwai

Helmand Bost, Nahr-e-Saraj, Nadi Ali, Garmser

Zabul Shahresafa, Jaldak, Mizan

Prepared by: Engineer Jan Mohd, MCI Engineering Coordinator

SUMMARY

The engineering department at MCI has been continuing to expand operations inside Afghanistan during the first quarter of 1993, as well as working on five large UN funded projects. Eight new AID funded projects are now underway with survey and other preparations on-going for a further six projects in both Helmand and Kandahar.

This process of expansion has been achieved both by hiring in more site engineers and also by up-grading the Quetta based staff to provide better administrative, logistics and monitoring capabilities. The Engineering Coordinator is taking on an increasingly management function and has been successful in balancing various programming demands with available resources and the extremely difficult field condition conditions.

To date MCI's engineering operations have not suffered significantly from the changing security situation (particularly around Kandahar city) and it is anticipated that work will progress smoothly over the next reporting quarter of 1993.

ON-GOING PROJECTS

1. RAMBASI DRAIN

This Drain is located in Kandahar province Dand, district. The project activity has ended at 30th March. No problems were encountered with either implementation strategy or security with local leaders (acting in a highly responsible and cooperative manner).

All project activities have been completed, including two vehicle crossings to the following technical specifications:

- 1 - Length 600 m
- 2 - Side slope 1:1.5
- 3 - Top width 6 m
- 4 - Bottom width 2 m
- 5 - Total quantity 23230 m³
- 6 - Started at 7.12.92
- 7 - Ended at 30.3.93

OKS

2. ARGHISTAN CABLE FOOT BRIDGE

This is located in Kandahar district over the Arghistan river. All project activities have been put on hold due to security situation on Main Road from Chaman to Kandahar in the first three months of 1993. Also, local commanders at the Arghistan site have attempted to construct a bridge crossing with their own funding and input. It is considered more beneficial to allow this

process to proceed without external aid. Furthermore, the MCI Engineering department does not wish to expose its staff to any potentially confrontational situation over claims for implementation of this project. Project activities will be reassessed when the security situation in this part of Kandahar province improves.

3. KARWANDAH CANAL

This canal is located in Helmand province, Bust district, near Lashkargah city. No problems were encountered from the commencement to the end. All project activities have been completed according to the following technical specifications: ✓

- 1 - Length 20,000 m (18km cleaned)
 - 2 - Side slope 1:1.5
 - 3 - Top width 3.60 m
 - 4 - Bottom width 1.20 m
 - 5 - Height 1.0 m (average)
 - 6 - Total Quantity 43200 m³
 - 7 - Started date 15.1.1993
 - 8 - Ended date 30.3.1993
 - 9 - Total working months 2.5 months
 - 10 - Irrigation capacity 6000 jeribs.
- (This canal is originated from Arghandab river)

4. SARKAR CANAL

This canal is also located in Helmand province Nahr-e-saraj area near Lashkarga city.

This canal originates from the Helmand river and is 20 km long. No problems were encountered with either implementation strategy or security with local leaders (acting in a highly responsible and cooperative manner). All project activities have been completed according to the following technical specifications set out by MCI field engineering staff:

- 1 - Length 20 km
- 2 - Side slope (1:1.5 m)
- 3 - Top width 4.5 m
- 4 - Bottom width 3 m
- 5 - Total quantity 54645 m³
- 6 - Started date 15.1.1993
- 7 - Ended date 30.3.1993
- 8 - Irrigation capacity (7800 jeribs)
- 9 - Height 1.30 m

5. MALAK ANWAR CANAL

Also located in Helmand province and runs parallel to Kerwannda canal. This canal length is 2 km and supplying water for 1000 jeribs.

This was achieved at no extra cost under saving of WFP input from the Kerwannda canal cleaning project which is adjacent to the Malak Anwar in Nahr-e-saraj area.

- 1 - Length 2000 m
- 2 - Side slope (1:1.5) m
- 3 - Height 1 m
- 4 - Top width 3 m
- 5 - Bottom 1 m
- 6 - Total quantity 4000 m³
- 7 - Started date 15.1.1993
- 8 - Ended date 30.3.1993
- 9 - Irrigation capacity (1000 jeribs)

6. BABA WALI DISTRICT COMPLEX

This complex is located in Kandahar province, Arghandab district. After consultation with engineering companies based in Quetta it was decided that instead of repairing existing gate and lifting mechanism, an entirely new system should be installed. This is not only cheaper, but the design for the lifting mechanism affords greater protection against vandalism and theft of metal components.

This decision necessitated re-measurement of intake aperture, which was attempted in Jan. 1993. However, it was discovered that the water level in the Baba Wali reach of the canal had risen considerably and survey data was not obtained. Consequently the manufacture of the gates has been put on hold until such a time as the survey can be carried out.

In the meantime, consultation is underway with potential donors and implementing NGO's in order to coordinate planning for the rehabilitation of the first 1000 meters of the six traditional canals, which are supplied from the Baba Wali distribution of the complex.

It is anticipated that manufacture of the gates can begin by the end of April 1993.

7. PANJWAI DRAIN CLEANING

This drain is located in Kandahar province, Panjwai district. It is 20 km long and it has badly silted during last fifteen years. Survey data has now been completed for the first 10 Km of the drain, which will allow for every detailed assessment of project activity, time-tabling and

equipment and personnel inputs. There is a great hope that the main project activities will start by the 15th of April.

8. LASHKER: BAZAAR (SHARGIE AND GHARBIE) CANALS

This canal is located in Helmand province Bust district. Work started on this canal on 20.2.93 and 85% of work done to date. No problems have been encountered with either implementation strategy of security, (with local leaders acting in a highly responsible and cooperative manner). All work activities have been carried out by M.C.I. field engineering staff to the following technical specifications:

- 1 - Length 1400 m
- 2 - Side slope (1:1.5) m
- 3 - Top width 3 m³
- 4 - Bottom width 1 m
- 5 - total quantity 22400 m³
- 6 - Height 1,30 m
- 7 - Started data 20.2.1993

and site planned?

ON-LINE FUNDED PROJECT PROPOSALS

1. RAHMAN KAUL DRAIN

This drain is located in Helmand province, Nadi Ali district. Preparation for the second comprehensive survey of this drain is underway. Cleaning will begin in mid-May 1993. ✓

2. BOLDAK ROAD

This road is located in Kandahar province, Daman and Dand districts. This road leads the way from Chaman to Kandahar city. ✓

Staff allocations for implementation have been made and preparation is underway for the complete survey of this road, to be carried out during the month of April. It is expected that construction work will begin in early May, 1993. ✓

duration

3. SHAHRI SAFA - MIZAN ROAD

This road is located in Zabul province, Jaldak and Mizan districts. Staff allocations for implementation have been made and preparation is underway for complete survey of this road

to be carried out during the month of May. It is expected that construction will begin in early June, 1993. ✓

4. GRAIN STORAGE BIN PROJECT

Location: Kandahar, Zabul, Urozgan, and Helmand provinces

Activities: Costing for the block - press machines has been carried out with several suppliers in Pakistan. Currently the engineering department is utilizing the capacity of the agriculture extension staff to identify potential village location for demonstration purpose. ✓ ?

5. DARWESHAN CANAL SYSTEM

This canal is located in Helmand province, Gramseer district. MCI is about to complete major rehabilitation of Darweshan head works funded by UNDP. This work will allow for the rehabilitation of canal structures downstream. Staff allocation for implementation have been made and preparation is underway for completing survey of the system to be carried out during the month of April. It is expected that construction work will begin in early June 1993. ✓

6. DARWESHAN DRAIN

Location: Garmser district Helmand province

Object: Rehabilitation of main drain

Staff allocation for implementation have been made and preparation is under way for complete survey of the system to be carried out during the month of May. It is expected that construction will begin in early July, 1993. ✓

FUTURE PROJECT PROPOSAL ACTIVITIES

1. RAHMAN CANAL CLEANING

This canal is located in Helmand province, Bust district. This canal is 10 km long. Complete survey work and negotiations with local village leaders have been carried out. Project document had been prepared, and it is expected that construction work will begin in early April, 1993. ✓

2. SHIR MOHD CANAL CLEANING

This canal is also located in Bust district of Helmand province. It is 10km long and badly silted. Complete survey work and negotiations with local village leaders have already been carried out. Project document has been prepared and submitted to WFP. It is expected that construction work will begin in early April, 1993.

3. GHOWRE ZAI, JUI SHAHI, WAZIR KHAN, ABDULLAH, SAAMAZAI AND MERALZAI CANALS CLEANING

These canals are located in Bust district of Helmand province. Survey work is currently underway after receiving a written request from the people and leaders of the command areas supplied by these seven traditional canals. Complete survey data should be compiled by the end of April, after which time project documents will be drawn up for WFP (wheat component).

It is anticipated that project activities could begin by late May, 1993.

ANIMAL HEALTH

Report Period: 1 Jan 93 to 31 March 93

Provinces and Districts under program:

Kandahar	Arghandab, Arghistan, Boldak, Daman, Dand, Khakraiz, Maruf, Maywand, Panjwai, Shah Wali Kot
Helmand	Bust, Garmser, Grishk, Nadali, Nahr-e-Saraj, Nawah, Sarban Qala
Farah	Farah City
Urozgan	Chora, Terinkot, Urozgan City
Zabul	Mezan, Jaldak, Sharisafa, Shinkai

Prepared by: Dr. Shah Mohammad, MCI Animal Health Coordinator

SUMMARY

ACTIVITIES AND ACCOMPLISHMENTS THIS QUARTER

The basic veterinary worker (BVW) training program continued during this quarter at two MCI centers in Chaman and Lashkargah. Between January 24, and March 31, 1993, two additional BVW training courses (course 9 and 10) were completed. ✓

During course 9, animal vaccination techniques were introduced into the course curriculum and each graduate BVW was provided with a vaccine gun for use in the field. In the future, all new BVWs trainees will receive this training as part of the core curriculum and will be provided with a vaccine gun in their kit. Entertoxemia and anthrax vaccine are now available to BVWs at MCI resupply centers. The vaccine is currently free to BVWs as it is being provided through UNDP. ||

A refresher course was offered for twenty four previously trained BVWs from training courses 1-5. Invitation was to BVW who had returned to buy medicine at an MCI resupply center at least once after graduation. The course was held from January 16 to 27, 1993 in Quetta, Pakistan. Out of twenty four BVWs invited, twenty attended the course. In interviews with these BVWs, it was identified that lack of mobility was a major constraint on carrying out BVW work, or increasing their work activity to make it more economically attractive. MCI decided to provide a bicycle to each of the 20 BVWs who attended the refresher course. During the refresher course we issued a vaccine gun, rumen trochar, and flip charts to each course participant and trained them in their use. The two best students in the course, based on examination results, received a veterinary drenching gun to honor their achievement. ?

The fifth field monitoring trip was carried out in February 1993 to assess graduates from course 6 and course 7 for the first time. A sixth monitoring trip was carried out in March 1993. Monitors have reported that, as a result of introducing the bicycle program, BVWs have become more interested in their work and are more active in the field. ||

Each MCI resupply store was visited monthly by the project administrative assistant and monthly reports reviewed and collected. Panacur, an anthelmintic used in the kits since the beginning of the BVW program, now has become unavailable in the Paksitan and Afghan supply network and we are exploring the introduction of an alternative drug for kits and for resupply. Choices under consideration include mebendazole and albendazole. why?

The Technical Coordinator of the MCI Veterinary Section made a trip from Feb 23 to March 9, 1993 to visit BVW training centers at Chaman and Lashkargah, and to visit drug resupply stores at Boldak, Share safa, Dand, Panjwai, and Lashkargah. In addition, he also visited the vaccination teams at various field sites to determine if the UNDP vaccination teams are combining their vaccination activities with the supervision and continued training of BVWs in their work areas.

Over the past year, the high quality of BVW training at MCI has been recognized and acknowledged by other NGOs and donor agencies. In December of 1992, the UNDP as well as the German Afghan Foundation (GAF) at Peshawar requested the loan of MCI teacher trainers to train their own staff in the techniques of training BVWs. Dr. Fateh Mohd and Haji Rahmani of the MCI veterinary staff were sent from March 9-16, 1993 to Peshawar to train 4 UNDP and 3 GAF staff members. Management Sciences for Health (MSH) are also interested to follow the BVW program for training of Basic Health Workers in the human health services.

In addition, UNDP Quetta requested MCI to train six BVWs for other Quetta based NGOs receiving UNDP funds for animal health programs. We trained these BVWs during courses 9 and 10 during this quarter.

Field reports indicate that some of the veterinary drugs that were introduced into southwest Afghanistan through the MCI BVW program have gained widespread recognition for effectiveness and are now available in the market place. PVT trainers as well as BVWs report that some kit drugs, previously unavailable in Afghanistan, are beginning to appear in the bazaar, most notably Fasinex, Naganol, and Rasomycine LA, among others. This spontaneous response in the private sector suggests that the ultimate transition of drug supply to the private sector will be successfully accomplished.

STATISTICS

The following data represent BVW monitoring efforts to date.

1. Number of BVWs trained:

Course 1 (started 2/17/92)	14
Course 2 (started 4/27/92)	11
Course 3 (started 6/21/92)	10
Course 4 (started 8/2 /92)	16
Course 5 (started 9/6 /92)	12
Course 6 (started 10/11/92)	16
Course 7 (started 11/15/92)	16
Course 8 (started 12/20/92)	17
Course 9 (started 1/ 25/93)	16
Course 10 (started 2/22/93)	16
Total	

144

2. Province and District Location of Trained BVWs.

<u>Province</u>	<u>District</u>	<u>No. of BVW Trained</u>
Kandahar	Arghandab	8
Kandahar	Arghistan	14
Kandahar	Boldak	8
Helmand	Bust	17
Urozgan	Chorah	2
Kandahar	Dand	6
Kandahar	Daman	4
Farah	Farah	1
Helmand	Garmser	13
Helmand	Grishk	3
Zabul	Kalat	1
Kandahar	Kandahar City	2
Kandahar	Khakraiz	2
	Koochi	2
Kandahar	Maywand	13
Kandahar	Maruf	1
Helmand	Nawah	3
Helmand	Nadali	2
Helmand	Nahresaraj	2
Kandahar	Panjwai	15
Helmand	Sarban Qala	1
Kandahar	Shah Wali Kot	9
Zabul	Shahresafa	6
Zabul	Zabul	5
Urozgan	Uruzgan	2
Urozgan	Uruzgan	2
Total		144

3. Number of graduated BVWs Monitored in the field as of 3/31/93

a.	Total monitored	112
b.	Monitored once	41
c.	Monitored twice	45
d.	Monitored thrice	26

4. Number of BVWs actively working based on storekeeper reports: 76 (67.8%).

5. Number of monitored BVWs not actively working: 25 (22.4%)

6. Monitored BVWs lost to follow up or deceased: 11 (9.8%)
7. Number of graduated BVWs not yet monitored: 32
8. Number of graduated BVWs returning to MCI centers to purchase resupply drugs May 1, 1992 through March, 31, 1993: 76

Total Number of BVWs returning to store:

Returning	20 times	1
Returning	16 times	1
Returning	12 times	1
Returning	11 times	1
Returning	10 times	2
Returning	8 times	3
Returning	7 times	2
Returning	6 times	2
Returning	5 times	7
Returning	4 times	10
Returning	3 times	13
Returning	2 times	17
Returning	1 times	16

9. Total amount of drugs sold to working BVWs at MCI centers in Boldak, Panjwai, Kandahar (Dand), Zabul (Share safe), Helmand (Lashkargah), May 1, 1992 to March 31, 1993:

Total Revenue in Afghani Afs. 15,006,254

Costs?

Specific drug sales itemized as follows:

<u>Name of drug</u>	<u>Quantity</u>	<u>Total Revenue in Afghani</u>
Fasinex, Jar of 80 boluses	637	823,100
Panacur-250, Box of 50 boluses	343	2,323,800
Panacur-750, Box of 50 boluses	228	4,187,650
Naganol, 5 gram packet	4,159	3,881,100
Ditrifon, 1 kg powder	109	803,099
Rasomycine LA, 30 ml vial	2,011	1,989,950
Strinacin/Sulfadimidine, Box of 20/50 tablets.	202	460,450
Vetimast Intramammary		
Infusion Tube	196	141,120
Eye ointment, 3.5 gram tube	1,330	97,620
Tincture of Iodine, 450 ml bottle	20	20,250
Gentian violet, 5 gram packet	128	12,780

Zinc Oxide, 300 mg box powder	67	21,075
Vaseline, 0.5 kg plastic bag	219	50,500
Sablon, 1 liter bottle	11	16,520
Potassium permanganate, 50 gram packet	18	5,400
Magnesium sulfate, 300 gram box powder	377	58,485
Sodium bicarbonate, 300 gram box powder	135	22,685
Kaolin powder, 300 gram box powder	80	14,420
Oral rehydration solution, 1 packet salt	1,372	76,250

10. Average number of livestock treated by working BVWs per month (Based on 112 monitoring interviews with working BVWs carried out between May, 1992 through March, 31, 1993). Please note that BVWs from the first five courses have not been monitored during this quarter.

<u>Type of Stock</u>	<u>Total</u>	<u>Average</u>	<i>BVW per month</i>
Sheep	26670	238	-
Goat	9236	82	-
Cattle	1544	15	
Camels	2314	21	
Donkeys	283	2.5	
Horses	86	<1	

(These statistics do not include monitoring data from Lashkargah in March. Field reports were not received in time due to security problems)

ASSESSMENT

Since February 1992, 144 BVWs have been trained. The high quality of the technical training of BVWs has been validated by the field performance of working BVWs as reported by monitors and by the general interest shown in our training protocols and materials by other agencies. However, we continue to be concerned about the BVWs who are trained and equipped and then do not actively work. In the last quarterly report, we identified some reasons and obstacles which contribute to the failure of some BVWs to work. These were:

1. Community skepticism —
2. Lack of transportation —

3. High drug price —
4. Problem in trainee selection ^
5. Limited potential for income generation —

Since the last quarter we have instituted some programmatic changes and identified some spontaneous trends which have led to an improvement in the proportion of BVWs actively working. It can be noted by comparison to the previous quarterly report that currently, based on monitoring and storekeeper reports, 67.8% of all BVWs monitored are actively working, compared to 56% of BVWs monitored last quarter. Higher proportions of BVWs trained in later BVW courses are working after graduation.

Some of the changes and trends which have contributed to this improvement are described below.

1. Community Skepticism

Previously, BVWs were receiving two weeks of classroom and practical training plus one week of field training in the trainee's home area under the supervision of the PVT teacher who selected him for the course. This 3 week total of training was not acceptable to some communities. For the resolution of this problem, we have begun to integrate our UNDP funded field vaccination activities with our BVW training in the field. Previously we fielded 3 mobile vaccination teams with 3 members each. Now we have separated out 1 individual from each team and assigned them permanently to a district. These vaccinators are now responsible for teaming up with BVWs in his district, with particular emphasis placed on more recent course graduates, in order to provide additional field supervision and training for an extended period up to 6 weeks. Vaccination teams working together with our BVW training increase BVW confidence as well as credibility with their home communities. The goal is to continue to separate out individual vaccinators from the mobile vaccination teams until we have 9 individual vaccinators responsible for BVWs in 9 districts. This will be accomplished when we procure motorcycles for each vaccinator.

2. Lack of Transportation

Through field monitoring activities and interviews with BVWs attending the January refresher course, it has been identified that lack of transportation is the major constraint on BVWs in carrying out their work. To address this problem, we issued twenty bicycles to BVWs who attended the refresher course. The Technical coordinator has since visited some of these BVWs and documented that their level of work activity and productivity has increased notably since receiving the bicycles. Furthermore, other BVWs who were working at a low level of activity or not working at all have now increased their work or begun to work, viewing the possible acquisition of a bicycle as a powerful incentive. We have made it known through our monitors that any BVW who achieves drug purchases at MCI centers in excess of Afs.500,000 is eligible to receive a bicycle.

The following data is provided to illustrate the powerful impact of the bicycle on BVW productivity.

BVW NUMBER	TOTAL DRUG PURCHASED FROM GRADUATION TO REFRESHER COURSE (Afs)	VALUE OF DRUGS PURCHASED SINCE END OF REFRESHER COURSE
3*	0	476,700
5**	38,010	420,716
10**	420,760	2,410,100
42**	23,200	154,170

* Did not attend refresher course but heard about the incentive program

** Attended the refresher course and received a bicycle

3. High Drug Prices

As the program was originally planned, the intention was to provide drugs at cost to BVWs and not to subsidize their purchases. Now there are many reports through PVT trainers, as well as BVWs, that some kit drugs are available in the market inside of Afghanistan at lower prices. Also, private traders are beginning to offer some BVW drugs to MCI at more competitive price. For example when we began purchasing drugs in February of 1992, a jar of 80 Fasinex boluses cost MCI 75 Rupees. Currently due to competition between traders anxious to sell to MCI, we are now paying 44 Rupees. Similarly, Sulfadimidine boluses previously cost us 100 Rupees for a box of 50 tablets, and we are now paying 50 Rupees. This reduction in prices has helped the BVW in the field considerably as potential customers are much more willing to purchase drugs and services.

To take advantage of this we have altered our purchasing procedures to buy from the lowest bidder in Afghanistan or Pakistan, rather than contracting to a single distributor. When a specific kit drug is purchased at a lower price, the new average price of drugs between the previous high price and new lower price is calculated and the storekeepers notified to offer the drug immediately to the BVWs at the lower average price.

4. Problems in Training Selection

According to the previous report, our trainee selection was performed either by the MCI Agriculture Area coordinator or PVT Trainers. After discussion with coordinators and trainers, we have decided that cooperation between the two groups in selection of BVWs will strengthen community support for the program and lead to selection of more responsible BVW candidates. Unfortunately, we are victims of our own success. At present, we have saturated areas of southwestern Afghanistan where MCI has agricultural centers staffed by area coordinators. Therefore we are now recruiting BVWs from districts where familiarity with MCI and its programs is low. In these areas, for example, districts of Urozgan and Zabul, PVT recruiters are met with some suspicion and skepticism when explaining the BVW program and soliciting trainees. In order to improve community trust and the credibility of PVT trainers, we are developing program information packets containing photographs and flip charts of project activities for PVT trainers to use in explaining the program. Visual documentation of program activities will allow PVT trainers to explain the program more convincingly.

5. Limited Potential For Income Generation

At the beginning of the program, it was decided that BVW course content should be limited because the capacity of illiterate BVWs to absorb technical information was unknown. Our approach was that the trainee should not be overloaded, and it was better for him to learn a little bit well than a lot poorly. However, our experience has taught us that in general, the trainees can easily grasp the lessons in the core curriculum and are capable of absorbing more information during the course.

As a result, we have taught vaccination techniques to the BVWs in the refresher course in January (BVWs of courses 1-5) and also incorporated vaccination technique into the core curriculum for new BVWs starting in course 8. BVWs from courses 6 and 7 will receive vaccination training in the next refresher course.

With the skill of vaccination, BVWs can begin work immediately on the population of healthy animals in the community and do not have to wait for the appearance of sick animals to begin income generation. Community involvement is immediate and the likelihood for sustained BVW activity is increased.

CONCLUSION

It has already been reported that MCI has made considerable progress in successfully implementing the BVW program in a short time. A strong foundation has been laid in the delivery of animal health care services to livestock owners in southwestern Afghanistan. This assessment is based on the number of BVWs working, the amount of medicines they are purchasing, and the number of animals they are treating.

Constraints in the BVW program are being identified and creative solutions are being offered. We believe that a higher percentage of BVW trained should be working and that this is being achieved by implementation of the changes discussed in this report.

In general, the accomplishments of the program to date should be viewed favorably. Even those BVWs who have chosen not to work have acquired significant knowledge concerning disease recognition, management and prevention. As all trainees are livestock owners themselves, their acquired knowledge will improve the health and productivity of their own flocks whether they work commercially as BVWs or not.

We feel it is most unfortunate that O/AID/Rep Afghanistan has chosen to terminate funding for this project a full year before the original termination date. With another year of funding, as originally planned, this program could readily achieve or exceed its original training targets, and serve as an exemplary model for private sector animal health initiatives throughout Afghanistan as well as in other countries of the region. Furthermore, our work with the BVW program in Afghanistan has led to the identification of other related activities worthy of implementation including women's animal health training opportunities, incorporation of rangeland management and other environmental ideas into BVW training, forage development projects for increasing livestock feed resources, and organization of cashmere fiber marketing cooperatives for Afghan herders as a long range economic development opportunity. There is a deep sense of frustration at MCI that these initiatives can not be explored in partnership with USAID. ✓

PVO Support Project
 Mercy Corps International
 Cooperative Agreement No. 306-0211-A-00-0961
 January to March 1993

LINE ITEM	SUB-LINE ITEM	TOTAL BUDGET	CUMULATIVE EXPENSES 31/12/92	JAN EXPENSES	FEB EXPENSES	MAR EXPENSES	TOTAL QUARTER EXPENSES	CUMULATIVE EXPENSES 31/03/93	% OF BUDGET EXPENDED	REMAINING BALANCE
MANAGEMENT										
	MANAGEMENT	528,540	359,766	19,444	28,199	17,090	64,733	424,499	80.32%	104,041
	TUSVM BACKSTOPPING	40,020	29,242	0	4,094	2,807	6,901	36,143	90.31%	3,877
	SUBTOTAL - MANAGEMENT	568,560	389,008	19,444	32,293	19,897	71,634	460,642	81.02%	107,918
PROGRAM ACTIVITIES										
	AFGHAN STAFF	636,160	403,290	37,239	21,349	20,736	79,324	482,614	75.86%	153,546
	CONSULTANTS	100,000	90,984	1,900	689	211	2,800	93,784	✓ 93.78%	6,216
	LABOR	350,000	305,462	0	0	0	0	305,462	✓ 87.27%	44,538
	TRAINING	90,500	20,804	100	1,805	1,018	2,923	23,727	26.22%	66,773
	PLANTING MATERIALS	145,000	92,105	383	1,019	1,117	2,519	94,624	65.26%	50,376
	IMPLEMENTS AND TOOLS	160,000	46,403	0	1,147	22	1,169	47,572	29.73%	112,428
	MEDICINES AND SUPPLIES	57,000	45,576	2,259	0	169	2,428	48,004	✓ 84.22%	8,996
	TRAVEL & PER DIEM	340,000	215,568	12,169	4,798	5,780	22,747	238,315	70.09%	101,685
	OTHER DIRECT COSTS	600	592	0	0	0	0	592	✓ 98.67%	8
	CAPITAL EQUIPMENT	475,920	157,156	0	515	686	1,201	158,357	33.27%	317,563
	SUBTOTAL - PROG ACTIV	2,355,180	1,377,940	54,050	31,322	29,739	115,111	1,493,051	63.39%	862,129
MONITORING										
	MONITOR/INFO. SERVICES	116,875	72,695	1,424	1,991	2,453	5,868	78,563	67.22%	38,312
	SUBTOTAL - MONITORING	116,875	72,695	1,424	1,991	2,453	5,868	78,563	67.22%	38,312
ADMIN										
	OFFICE OPERATIONS	126,925	99,283	4,936	2,559	6,935	14,430	113,713	✓ 89.59%	13,212
	OVERHEAD	437,460	292,474	13,168	11,156	9,620	33,944	326,418	74.62%	111,042
	SUBTOTAL - ADMIN	564,385	391,757	18,104	13,715	16,555	48,374	440,131	77.98%	124,254
	TOTALS	3,605,000	2,231,400	93,022	79,321	68,644	240,987	2,472,387	68.58%	1,132,613

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**PVO SUPPORT PROJECT
COOPERATIVE AGREEMENT #306 - 0211 - A - 00 - 0961 - 00**

**MERCY CORPS INTERNATIONAL
AGRICULTURAL ASSISTANCE FOR SOUTHWEST AFGHANISTAN**

**QUARTERLY REPORT
OCTOBER 1, - DECEMBER 31, 1992**

**MERCY CORPS INTERNATIONAL
House 10 Arbab Karam Khan Road
P.O. Box 314
Quetta, Pakistan
Telephone: 40960/40905
Fax: 43019**

**Don Bradford, MCI Country Director
Prepared by: Brian Walker, MCI AG Program Coordinator**

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SUMMARY

The quarter under review, October 1, to December 31, 1992, was an extremely eventful period in the life of this cooperative agreement. Mercy Corps International (MCI) was informed by the Office of the USAID Representative (O/AID/REP) that all available funds for the rehabilitation of Afghanistan were to be reduced from fifty million dollars to twenty million dollars. This sixty per cent reduction would result in the cancellation of the fourth year of this four year cooperative agreement.

We were informed that all funds presently obligated, under the original agreement, and amendments 2,3,4,5,6 & 7, would represent all the funds available for the life of the agreement. All funds obligated could be carried forward until expenditure and affordable implementation were completed. MCI was requested to prepare and submit a revised budget, by November 30, outlining obligated funds and planned expenditures, including a proposed end of implementation date.

This revised budget and implementation schedule, as submitted to O/AID REP in November, call for an expenditure rate of approximately US\$ 99,900. per month through the end of February, 1994. This will allow a limited amount of funding for a three month close out period, ending May 31, 1994.

Perhaps the reader does not need to be told, this news from O/AID/REP was both a shock and a disappointment. While MCI fared better than several USAID contractors working in Afghanistan, the loss of projected funding was a major setback in our rehabilitation planning. We feel extremely positive in our ability to reduce expenditures and extended program activities into calendar year 1994. Regardless of the lost year of funding, the expatriate and Afghan staff working for MCI are grateful for the support and encouragement provided by O/AID/REP.

It would be considered appropriate for an agricultural assistance program to slow down during the winter months. This, however is not the case with the MCI cooperative agreement. Due to the nature of our engineering work in irrigation reconstruction, involvement with improved winter wheat propagation, and training sedentary farmers as Basic Veterinary Workers, winter is the primary period of implementation.

During the hard winter months of December, January and February, the lack of snow melt and seasonal rain allow for the most productive work period in activities that involve the river systems of southwest Afghanistan. The two major project activities, the Darweshan Intake repair and the Mian Pushta Canal protection, must be completed before the spring water rise. Work is ongoing, with 97 MCI field staff, and partner arrangements with Helmand Valley Authority (HVA) and the Helmand Construction Corporation (HCC) for use of heavy equipment, logistic support and access to original design documents.

Non-USAID supported

— UNDP
Winter wheat propagation is in full swing, with thirteen Afghan NGOs working under the MCI umbrella, distributing 305 metric tons of improved seed and 305 metric tons of DAP fertilizer. End use of all fertilizer is confirmed by a combined monitoring effort of the Afghan NGOs and MCI field staff. Each recipient farmer is logged into the monitoring data base, by name, father's name, village, district and province. Land size used for wheat cultivation is pre-determined and allocations of seed and fertilizer are provided accordingly. Monitoring includes planting dates, fertilizer application amounts and dates, as well as dates of irrigation water application.

As sedentary farmers are forced to lighten their workload during winter months (after wheat planting), BVW training was able to expand from one training center, in Chaman (Pakistan) to two centers. The second training center, in Lashkargarh, Helmand Province, has completed two training courses in this quarter. MCI, also opened a new veterinary medicine resupply center in Lashkargarh. Monitoring of graduate BVWs continued throughout this quarter, with a combined evaluation of their work through home site visits and records of medical resupply purchases.

This winter quarter allowed MCI to begin implementation of its Integrated Pest Management (IPM) program. Fall orchard visits were completed in three provinces, with primary pests being identified. A training curriculum for MCI field staff was designed and plans completed for their introductory training. MCI will use its curriculum for the training of Afghan NGO, IPM extension workers, in cooperation with UNDP, later in the year.

Few logistical problems have been faced during this quarter. Procurement of program materials and equipment has kept pace with implementation schedules. We do face periodic troubles with the Pakistan Octroi at the border crossing. The "tax collector" attempts to charge MCI drives as if they were profit making transport contractors. We had vehicle registration cards taken from the three MCI trucks, but after "negotiations" the cards have been returned for the payment of Rupees two hundred per vehicle. We have not achieved a long term solution for this problem, but hopefully it will not impair our work.

HORTICULTURE AND CEREAL GRAINS

MCI Crop Production Programs for the Last Quarter of 1992

General Remarks:

This period has been one of considerable activity in both the Cereal and the Horticultural sections. MCI work in cereals has focussed more on carrying out extension programs whereas in horticulture, the focus has been more on training of MCI workers and evaluation of the agricultural year.

MCI has taken advantage of training offered by several different organizations; among them DAI and FAO. More training, this time in-house, has been taking shape this quarter, to initiate the Integrated Pest Management program in the late winter.

HORTICULTURE

Kishmish Khana and Vineyard Rehabilitation:

This quarter under review saw the last activity in this project area. As of December 31, 1993, MCI will not conduct any more direct implementation of kishmish khana reconstruction. To date the activity has rebuilt 3,009 raisin drying houses (290,598.64 cubic meters of earthen construction contracted and completed). In this quarter alone, 474 kishmish khana were completed.

The cost effectiveness of this project effort is demonstrated by the breakdown of dollars spent to food for work wheat used as labor payments. The 3,009 kishmish khana cost the grant, in direct payments to labor and landowners a total of US\$ 135,018., and 4,141.09 metric tons of wheat. The figures below are a breakdown of the activity costs to demonstrate the cost of programming one metric ton of wheat.

(141,769,188 Afs/42 = Rs.3,375,456.86/25 = US\$ 135,018.27)
(US\$ 135,018.27/4,141 tons = US\$ 32.61. x 3% = US\$.98)
(x 16.4% = US\$ 5.35 for a total of US\$ 38.94 per metric ton)
(3% = MCI Quetta and field expenses)
(16.4% = MCI grant overhead expenses)

It should be remembered that the kishmish khana project was implemented in concert with vineyard rehabilitation. The raisin drying houses are of little use without grapes to dry. Therefore the project effort had two components, the vineyard and the khana. During the life of this activity a total of 5,624 acres of the vineyards were rehabilitated at a cost of US\$ 167,408., and 5,241 metric tons of food for work wheat. The figures below are a breakdown of the activity costs to demonstrate the cost of programming one ton of wheat.

(175,778,000 Afs/42 = Rs.4,185,190.48/25 = US\$ 167,407.62)
(US\$ 167,407.62/5,241 tons = US\$ 29.77 x 3% = US\$.89)
(x 16.4% = US\$ 4.88 for a total of US\$ 35.54 per metric ton)
(3% = MCI Quetta and field expenses)
(16.4% = MCI grant overhead expenses)

The combined effort of kishmish khana rehabilitation and vineyard rehabilitation, cost the cooperative agreement US\$ 38.46 to provide the labor and landowner the opportunity to earn one metric ton of food for work wheat. MCI believes this was a very cost effective program which brought an average of 1.87 acres of grape production per drying house, back into the commercial market. 3,132 individual farmers have received assistance in the reconstruction of their vineyards, and 3009 kishmish khana have been rebuilt to process the farmers product, all at an average cost of US\$ 38.46 per ton of food for work wheat.

While the kishmish khana reconstruction phase is completed, the cooperative agreement will continue to work with vineyard owners. The future work will not be vineyard reconstruction, or kishmish khana building, but will involve providing the growers access to improved vine stock from the three nurseries established by MCI under this grant. MCI extension staff will continue to provide instruction in integrated pest management, pruning and marketing.

It is hoped that additional funding will be obtained to recondition one of the three former fruit cleaning and packing lines in Kandahar city. MCI is presently approaching IRC/RAP to determine if a farmers cooperative comprising many of the vineyard rehabilitation beneficiaries, will meet the terms for Afghan NGO support. Should MCI be able to recondition a cleaning and packing line for both raisins and apricots, the effective market value of the produce will increase dramatically through export (hard currency) earnings. A packing line that can maintain quality control will put southwest Afghanistan fruit growers back into the export market they once commanded.

Fruit Tree Rehabilitation:

In October, five MCI field staff were assigned various areas for fruit tree pruning operations. They were provided with records of last year's pruning activities so they could return to the same farms for maintenance pruning of last year's demonstration trees. Many of the participating farmers were contacted in August of 1992 and asked about the demonstration trees. Most expressed enthusiasm over the vigor of the pruned trees and the absence of pest problems in those trees. These informal observations by farmers are reasonable and for a variety of physiological reasons, can be attributed to the pruning of the trees. Pruning will continue into next quarter with a projected goal of 2000 trees in three provinces pruned by the five staff (see table 1 for pruning data).

Integrated Pest Management:

The variety of small programs in horticulture all point to a balanced approach to rehabilitation of the fruit production industry in Afghanistan. This quarter, a new and very important element of the total fruit production program was introduced. Prof. Pir Mohammad Siddiqi, an entomologist from Kabul University was engaged by MCI as a consultant to help develop a pest management program for Afghan farmers. His work is the first step by MCI in addressing the very serious problem of agricultural pests in Afghanistan. His report (see annex 1) details the pests he observed in the orchards and vineyards of Helmand, Kandahar, Uruzghan, and Zabul. He has recommended pest control measures that place pesticides in their proper role as only a part of the total pest management approach.

The program is under development now and will be presented in its entirety in the first quarterly report of 1993. Presently, the plan is for 10 MCI horticultural extensionists to receive training in IPM from Prof. Siddiqi in entomology and instruction in extension and technology transfer from several other in-house and outside specialists. After this training, they will proceed to stations in Helmand, Kandahar, Uruzghan and Zabul. In those areas, farmers who have participated in other MCI horticultural programs will be contacted and engaged in a two year pest management program.

Nursery Management:

In October, agreements were made with four farmers in Kandahar and Helmand provinces and work began to establish nurseries on their land. MCI agreed to establish a one jerib nursery and sow it with almond and apricot seed. The farmers agreed to maintain the stand of seedlings until July. At this time, MCI extension horticulturists will evaluate the stand to see if it is in good enough condition to bud. If so, MCI will provide budwood from improved or selected cultivars and training in budding. The owner of the orchard will be responsible to provide trainable labor for the budding. MCI will supervise the budding and labelling of the trees. After that, the nursery will be turned over to the owner for his own profit.

MCI has also established a five jerib almond nursery in Panjwai for tree sales in winter of 1994/95. This nursery will be used for training and for controlled propagation of valuable selected cultivars.

TABLE 1

MCI ORCHARD PRUNING PROGRAM 1992-1993								
PROVINCE	DISTRICT	FIELD STAFF	NUMBERS AND TYPES OF TREES PRUNED					TOTALS
			ALMOND	APPLE	APRICOT	PLUM	OTHER	
KANDAHAR	ARGHANDAB	MEHR-ABUDDIN	8	36	73	9	81	207
	DAND	KHALID	6	57	71	15	88	237
	PANJWAI	OBAlDULLAH	2	72	19	24	106	223
URUZGHAN	TERINCOT	MOH'D ISMAIL	244	9	140	17		410
KANDAHAR	DAND	MOH'D ISSA	5	43	40	1	66	155
TOTALS			265	217	343	66	341	1232

CEREAL GRAINS

Wheat Production:

The quarter began with the receipt of 200 MT tons of Pirsabak certified wheat seed and 200 MT of DAP from DAI for general distribution in MCI areas of operation. A distribution plan was developed and was partially implemented by the end of the quarter (see table 2). To date, MCI has received distribution reports from Uruzghan, Zabul, and parts of Kandahar (see table 3).

Agricultural machinery demonstrations were completed in the latter part of the second quarter and now the results have been submitted from the field (see table 4). Nine threshers were in operation in four districts of Kandahar and Zabul. As the table shows, MCI threshed nearly 400 metric tons of wheat at the rate of Afg. 2500 per hour. An additional 313 hours were logged on MCI threshers with farmers' own tractor power for Afg. 1000 per hour. This additional activity resulted in 141 metric tons of wheat being threshed.

Presently, we have not received the lists of MCI seed farmers from our various extension agents; they will be submitted next quarter. In this quarter, the farmers who will participate in the wheat seed production program have been selected and extension visits have begun. The information collected on these 350 farmers will be entered into the data base in Quetta. The system of gathering information has been updated for use this season with a great deal more attention being paid to the various agronomic events and problems in the year. This system promises to provide MCI technical staff in Quetta with the ability to monitor closely the problems encountered by farmers and immediately develop and coordinate solutions.

In response to the renewed concern expressed by O/AID/REP that US-provided fertilizer not be used for poppy cultivation, a special position was created for an MCI field staff to carry out an anti-poppy information campaign. The field worker, Samiullah, is an Islamic legal specialist with a great deal of zeal for the job. He is enthusiastically using the posters and silkscreens produced by the UN Drug Control Program (UNDCP), distributing them in Uruzghan, Zabul, Kandahar, and Helmand. His report of his time in Uruzghan appraising the poppy-growing situation and discussing these issues with various shooras is included as annex 2.

MCI is again working as an umbrella agency with UNDP to provide training and monitoring for other NGOs engaged in wheat seed production. Groups of 30-40 farmers and extensionists will participate in MCI-run one-day wheat seed production workshops located in Farah, Helmand, Kandahar, Uruzghan, and Zabul. Each province will have three workshops, dealing with one or two timely topics such as irrigation and fertility, weeding and roguing, and roguing and harvest. Machinery and land levelling demonstrations will also be carried out as opportunities permit. These training sessions will also have farmers from MCI's own seed production program in attendance. Approximately 250 farmers and extension workers will be trained through the season.

TABLE 2

WHEAT PLAN, 1992/93

PROVINCE	DISTRICT	GENERAL DISTRIBUTION (MT)						SEED PRODUCTION (MT OF BASIC SEED)												DISTRICT TOTALS						
		PS 85		PAK 81		DAP		PS 85		PAK 81		ZARGHOON	INQALABI	AFGHAN 14	AR. WHITE	TOKAK	WELFAJRE	DAP								
		US	FAO	US	FAO	US	FAO	US	FAO	US	FAO	US	FAO	US	FAO	US	FAO	US	FAO		US	FAO				
KANDAHAR	ARGHASTAN	20			3	20	3			1	0.1	0.1	0.1							1.3	48.6					
	DAND	30				30															60					
	PUNJWAI	20			12	20	12		4	0.5	0.1	0.4	0.3	0.3	0.2				5.8	75.6						
	MAIWAND							1	4	1									2	4						
ZABUL	DAICHOPAN	80				80															160					
	MIZAN	20			28	20	28														96					
	S. SAFA	30				30				0.3			0.3	0.3	0.2				1.1	62.25						
URUZGHAN	K. URUZGN		2		35		37														74					
	CHORA		2		46		48														96					
HELMAND	DARWESHAN										10			0.3	0.3				10	20.6						
																					0					
																					0					
																					0					
																					0					
WHEAT/FERTILIZER		200	4	0	124	200	128	0	1	0	5	0	11.	0	0.2	0	0.5	0	0.9	0	0.9	0	0.4	0	20.	697.05

TABLE 3

MCI SEED AND FERTILIZER SALES PROJECTIONS
BY SOURCE AND LOCATION
FALL, 1992

PROVINCE	DISTRICT	AID FERT. (MT)	AID SEED (MT)	CASH (AF) EARNED	FAO FERT. (MT)	FAO SEED (MT)	CASH (AF) EARNED
KANDAHAR	ARGHASTAN	20	20	3600000	3.4	4.5	711000
	DAND	30	30	5400000			0
	PUNJWAI	20	20	3600000	17.5	17.5	3150000
	MAIWAND			0	2	2	360000
ZABUL	DAICHOPAN	80	80	14400000			0
	MIZAN	20	20	3600000	28	28	5040000
	S. SAFA	30	30	5400000			0
URUZGHAN	K. URUZGHAN			0	37	37	6660000
	CHORA			0	48	48	8640000
				0			0
HELMAND	DARWESHAN			0	10	10	1800000
TOTALS		200	200	36000000	145.	147	26361000
VALUE IN PAK Rs. @ 39.4 AFG PER PAK Rs.				913705.5	VALUE IN PAK Rs. @ 39.4 AFG PER PAK Rs.		
					669060.9		

* 10 MT SEED FOR DARWESHAN
PROVIDED FROM MCI STOCK

TABLE 4

MCI WHEAT THRESHING ASSISTANCE, SUMMER 1992

PROVINCE	DISTRICT	# FARMERS	KG. THRESHED	HRS. WORKED	AFG. EARNED
KANDAHAR	PANJWAI	62	149,625	333	831,250
	MAIWAND	47	102,825	229	571,250
	DAND	22	45,900	102	255,000
ZABUL	S. SAFA	54	90,000	200	500,000
TOTALS		185	388,350	863	2,157,500

45

Maize Production:

The goal of the maize seed production program for 1992 was to produce a significant amount of high quality seed of improved variety seed for general distribution in spring of 1993. Thus, MCI contracted with a small number of farmers to produce 48 MT seed in Kandahar and Helmand provinces, provided those farmers with extension assistance, shelling, and seed cleaning assistance. To date, 15 MT has been collected in accordance to the contracts, cleaned, bagged and labelled. The maize seed was bagged, labelled and stored at MCI centers in Panjwai and Darweshan for general distribution in Helmand, Kandahar, and Zabul next spring.

ANIMAL HEALTH

OBJECTIVE

The objective of this component is to provide basic animal health training to Afghans who are already actively involved in animal production to enable them to provide sustainable animal health care services for themselves and their neighbors. This will be accomplished by:

- a. Hiring appropriate technical staff with technical support from Tufts University School of Veterinary Medicine (TUSVM).
- b. Designing an appropriate basic animal health training course.
- c. Identifying and training trainers.
- d. Identifying, procuring and arranging a supply network for a range of simple equipment and pharmaceutical supplies.
- e. Training, supplying and monitoring the work of the Basic Veterinary Workers (BVW).
- f. Redesigning and upgrading the training course in the light of monitoring reports.
- g. Arranging for the re-supply system to move into the private sector to ensure the sustainability of the program.

ACTIVITIES AND ACCOMPLISHMENTS THIS QUARTER

Training activities continued uninterrupted this quarter. Between October 1 and December 31, 1992 two additional Basic Veterinary Worker (BVW) training courses (course numbers 6 and 7) were completed and a third initiated. By the end of the calendar year 95 BVWs had been completely trained.

Beginning with course number 6, the animal health flip charts prepared earlier in the year are being used in the training of new BVWs and each graduate is provided with a set of charts for extension and promotional use in the field. These are extremely well received by BVWs, who find them useful in gaining community acceptance and understanding of the services that the BVW can provide.

A new training center was opened in Lashkagar, Helmand Province, to accommodate the expansion of BVW recruitment into Helmand Province. Training at this center began with course number 7. The PVT teaching team has been divided so that concurrent courses are given in Chaman and Lashkagar, with 6-8 students being trained simultaneously at each center.

A third field monitoring trip was carried out in November and December to assess all BVW graduates from courses 1 through 5. A follow up trip was carried out in late December to track BVWs who were due to be monitored but were not found in their villages in November. Due to the expanding numbers of trained BVWs and the importance of monitoring, a Paraveterinary (PVT) assistant has been hired to help with field monitoring activities.

A refresher course has been organized, a curriculum and syllabus prepared and previously trained BVWs invited to attend. Invitation was only to BVWs who have returned to buy medicine at an MCI resupply center at least once. Twenty four BVWs were invited. The course is being held from January 16-27, 1992 in Quetta.

A main storehouse for veterinary supplies was established at the MCI Kandahar Center in November, and a trained PVT has been placed in charge. It became apparent that Spin Boldak was not well located to serve as the main depot for drug resupply as the geographic distribution of BVWs has expanded. Virtually all public transport routes in the region connect through Kandahar Center. Restocking of MCI subcenters with veterinary drugs is more easily and rapidly accomplished from here than Boldak. A new resupply subcenters has been established at Lashkagar to accommodate the initiation of BVW training in Helmand Province. New storekeeping and accounting forms have been developed to track inventories and BVW purchase activity at Kandahar and subcenters. Each store is visited monthly by the project's administrative assistant and monthly reports reviewed and collected.

Three new drugs have been added to the BVW kit and new training information about the drugs has been incorporated into the BVW course. This reflects input from working BVWs and PVT teachers in the field concerning important disease problems being seen. The medicines include Naganol for the treatment of trypanosomiasis in camels, Vetimast, an intramammary antibiotic infusion tube for supplementary treatment of mastitis, and Kaolin Powder for symptomatic treatment of diarrhea. In addition, the disinfectant Sablon and the antiseptic Gentian Violet have been dropped from the kit and replaced with Potassium Permanganate which is cheaper, equally effective, and easier to transport, use and carry.

Animal vaccination team activity, sponsored by UNDP, was initiated in October. Thirty three BVWs were approached by vaccination teams during the quarter with invitations to accompany them in their work in order to provide therapeutic services during vaccination activity. Ten BVWs accepted this invitation. BVWs that accompanied vaccination teams were able to learn vaccination procedures from the teams and increased their exposure to the community about the services they can provide.

The quality of BVW training at MCI has been recognized by other NGO's and donor agencies as being of high quality. Some agencies have requested flip charts for use in their own programs (eg. Dutch Committee for Afghanistan). UNDP Peshawar has requested the loan of MCI teacher trainers to train their own staff in the training of BVWs. UNDP Quetta has asked MCI to assume responsibility for the training of Paravets and BVWs from other NGOs in SW Afghanistan and is prepared to fund this activity. The Provincial Livestock Department, Government of Balochistan has also expressed interest in developing a BVW training program for the Province.

Selected veterinary drugs introduced into southwest Afghanistan through the BVW program are starting to gain recognition in the marketplace. During this quarter, two independent drug suppliers came to the MCI office to offer kit drugs for sale to MCI at competitive prices. In addition, PVT trainers report that some kit drugs, previously unavailable in Afghanistan are beginning to appear in the bazaar, most notably Fasinex, a very effective liver fluke medicine. This spontaneous response in the private sector reflects the recognized efficacy and acceptance of MCI-promoted drugs in Afghanistan and suggests that ultimate transition of drug supply to the private sector will be successfully accomplished.

STATISTICS

The following data represent BVW monitoring efforts to date.

1. Number of BVWs Trained

Course 1 (start 2/17/92) 14

Course 2 (start 4/27/92) 11

Course 3 (start 6/21/92) 10

Course 4 (start 8/2/92) 16

Course 5 (start 9/6/92) 12

Course 6 (start 10/11/92) 16

Course 7 (start 11/15/92) 16

Course 8 (start 12/20/92) 17

TOTAL 112

2. Province and District Locations of Trained BVWs

District	Province	# of BVWs Trained
Arghandab	Kandahar	8
Arghastan	Kandahar	14
Boldak	Kandahar	8
Bust	Helmand	4
Dand	Kandahar	6
Daman	Kandahar	4
Farah	Farah	1
Garmser	Helmand	9
Grishk	Helmand	2
Kalat	Zabul	1
Kandahar City	Kandahar	2
Maywand	Kandahar	13
Mezana	Zabul	10
Punjwai	Kandahar	15
Sarban Qala	Helmand	1
Shar i Safa	Zabul	6
Shah Wali Kot	Kandahar	5
Shinkai	Zabul	1
Tirinkot	Urozgan	2
TOTAL		112

3. Number of Graduate BVWs Monitored in the Field as of 12/31/92

- a. Total monitored 63
- a. Monitored once 25
- b. Monitored twice 13
- c. Monitored thrice 25

- 4. Number of Monitored BVWs Actively Working: 35 (56%)
- 5. Number of Monitored BVWs Not Actively Working: 19 (30%)
- 6. Monitored BVWs Lost to Follow up or Deceased: 9 (14%)
- 7. Number of Graduate BVWs Not Yet Monitored: 49

8. Number of Graduate BVWs Returning to MCI Centers to Purchase Resupply Drugs
May 1 - December 31, 1992

Total Number of BVW Returning	38
Returning 12 times	2
Returning 10 times	1
Returning 6 times	2
Returning 5 times	2
Returning 4 times	2
Returning 3 times	4
Returning 2 times	5
Returning 1 time	21

9. Total Amount of Drugs Sold to Working BVWs at MCI Centers in Boldak, Punjwai, and Shar i Safa, May 1 through December 30, 1992

	Quantity Sold	Total Revenue (In Afghanis)
Fasinex Jar of 80 boluses	269	543,750
Panacur 250 Box of 50 boluses	90	502,200
Panacur 750 Jar of 50 boluses	66	1,223,050
Naganol 5 gram packet	505	689,820
Ditrifon 1 kg tub of powder	22	156,749
Rasomycine LA 30 ml vial	964	916,775
Strinacin/Sulfadimidine Box of 20/50 tablets	43	65,550

SI

Vetimast Infusion		
Intramammary infusion tube	28	20,160
Eye Ointment		
3.5 gram tube	692	40,200
Tincture of Iodine		
450 ml bottle	14	14,550
Gentian Violet		
5 gram packet	120	11,580
Zinc oxide		
300 gram box powder	34	10,185
Vaseline		
0.5 kg plastic bag	118	39,100
Sablon		
1 liter bottle	6*	7,820
Potassium Permanganate		
50 gram packet	0	0
Magnesium Sulfate		
300 gram box powder	201*	26,805
Sodium Bicarbonate		
300 gram box powder	55	8,285
Kaolin Powder		
300 gram box powder	24	4,340
Oral Rehydration Solution		
1 packet salts	692	35,450
TOTAL REVENUE		
(In Afghanis)		4,316,369

* Higher sales figures previously cited in the 3rd Quarterly Report of 1992 were erroneous, due to typographic error.

12. Average Number of Livestock Treated by Working BVWs per Month
 (Based on 63 monitoring interviews with working BVWs carried out between May and November, 1992)

<u>Type of Stock</u>	<u>Total</u>	<u>Average</u>
Sheep	17,253	273.8
Goats	4,086	64.8
Cattle	849	13.5
Camels	671	10.7
Donkeys	135	2.1
Horses	34	0.5

13. Seasonal Variations in the Average Number of Livestock Treated by BVWs per Month.

<u>Type of Stock</u>	<u>Spring</u>	<u>Summer</u>	<u>Autumn</u>
Sheep	188.3	182.0	377.8
Goats	87.3	42.8	65.2
Cattle	8.6	17.4	12.6
Camels	15.8	9.8	8.5
Donkeys	3.3	2.9	1.0
Horses	1.3	0.3	0.3

ASSESSMENT

Considerable progress has been made in the BVW program. Over 100 BVWs have been trained since training began in February of 1992. The high quality of the technical training has been validated by the field performance of working BVWs as assessed by monitors and by the general interest shown in our training protocols and materials by other agencies.

However, we are concerned by the relatively low proportion of BVWs who are trained and equipped and then do not actively engage in BVW work. We believe that there are five major determinants affecting whether or not BVWs work following training, based on monitoring inputs. These are identified and discussed as follows:

1. Community skepticism
2. Lack of transportation
3. High drug prices
4. Problems in trainee selection
5. Limited potential for income generation

Community skepticism Under the present structure, trainees receive 2 weeks of classroom/practical training at an MCI training center and 1 week of additional practical training in the trainee's home area. Input from field staff suggests that in many communities, at least some community members are skeptical that a trainee can become a "qualified doctor" in such a short period of time. Efforts to explain different degrees and types of paraprofessional and professional training are fruitless. The perception remains that anyone possessing medical equipment and drugs to dispense is a doctor, while the qualifications of such an individual, after a short period of training, are suspect. In turn, some BVWs, when challenged by skeptics have a crisis of confidence and lose their enthusiasm for carrying out their work, worried no doubt that any treatment failure will be attributed to charlatanism.

These notions are, of course, poorly grounded, as many BVWs have demonstrated their ability to work effectively and have achieved community respect and appreciation. Nevertheless, the negative perceptions remain in some communities and must be dealt with.

We are proposing a modification of our training program to extend the time that BVWs work in conjunction with trained paraveterinarians in their home communities. In addition to the one week of home training provided by classroom trainers, we will provide extended supervision by a trained PVT other than the classroom trainer. A paraveterinarian (PVT) will be stationed in each of the main districts in which BVWs are trained. These PVTs will be responsible for field training and progress evaluation of all BVWs in their district. They will regularly visit and work with BVWs for variable

periods after classroom training, based on their assessment of the BVWs ability to work independently and gain community acceptance.

The minimum time spent with each newly trained BVW will be 3 weeks. The maximum will be 10 weeks of routine visits. If after this time, the PVT thinks the BVW will not work successfully, further effort will not be expended. The BVW will be asked to return his kit equipment. These PVT field trainers will keep a log of BVW training activity. Veterinary monitors will visit the PVT and his BVWs periodically to confirm that the PVT's schedule is being followed. As PVTs are salaried, any remuneration of treatment activity carried out by the BVW and his trainer will accrue to the BVW.

PVTs to be used in this capacity are currently funded through UNDP as MCI animal vaccinators. Their vaccination activity will be combined with their BVW support role so that the USAID-funded BVW program will benefit from this addition resource base.

2. Lack of transportation The majority of trained BVWs, both working and non-working identify lack of mobility as a major constraint on carrying out BVW work, or increasing their work activity to make it more economically attractive. The requirement they usually express is practical and realistic, a bicycle.

We recognize this constraint as real. However, we can not provide bicycles to all BVWs. To deal with this problem, we are proposing to use the bicycle as a work incentive. All currently working BVWs as well as all future trainees will be informed of the bicycle incentive program. As is currently done, the drug purchases of all BVWs are recorded at MCI resupply centers. When a BVW has purchased Af 125,000, he will be entitled to buy a bicycle from MCI for 3/4 of the MCI purchase price. When he reaches purchases of Af 250,000, he can buy a bicycle for 1/2 price. At Af 375,000 he can buy the bicycle at 1/4 price, and at a purchase level of Af 500,000, he will be given a bicycle for free. This provides an incentive to all BVWs and rewards those who are most active and are most likely to provide increased service through possession of the bicycle.

3. High Drug Prices As the program was originally planned, the intention was to provide drugs at cost to BVWs and not to subsidize their purchases. The drugs we have selected for the program are safe, effective, reliable and broad spectrum and we are reluctant to change drugs. Changing drugs also means making a change in training, as drug recognition on the basis of brand and label is a major part of the training process.

The problem is that cheaper drugs exist in the marketplace and BVWs encounter some resistance by communities in purchasing their BVW drugs. However the cheaper drugs which the community is familiar with are often expired, sometimes dangerous, and frequently misused. We try to create public awareness about this, but many of these issues are too sophisticated to be dealt with through extension efforts. Therefore the challenge is to reduce the price of our drugs while avoiding subsidies.

Fortunately, public awareness of the effectiveness of BVW drugs is spreading and, as discussed earlier, private traders are beginning to offer some BVW drugs to MCI at competitive prices. Our immediate plan to address the issue of high drug prices is to authorize our administrative assistant to act also as our buyer. He will be directed to buy

resupply stocks of individual drugs at the best price available, either in Afghanistan or Pakistan. As soon as a specific drug is purchased at a lower price, the price list to MCI storekeepers will be revised, reflecting an average price between the previously purchased, higher-priced lot, and the newer, lower-priced lot. The new price to BVWs will be immediately effective.

For the future, our objective is to train PVTs as shopkeepers and encourage them to go into private trade. When trained PVTs are working as drug merchants, this will allow greater flexibility in the range of drugs available to BVWs. The PVT will not only be able to recommend lower-priced, appropriate, substitute drugs responsibly, but he can also instruct the BVW correctly about their use. MCI intends to run a small business management program for staff PVTs before the end of the BVW program so that they can move readily into the private sector.

4. Problems in trainee selection Originally, BVW trainees were selected by MCI Agriculture Area Coordinators inside Afghanistan. These men are generally agriculturalists, but not necessarily animal production specialists. Their strength lies in their close association with and trust by the communities they serve. However, after the first training course, PVT trainers complained about the trainees selected by the area coordinators, indicating that the trainees' backgrounds with livestock were insufficient. The PVTs requested the role of trainee selection.

Monitoring data on the first six groups of trainees however, does not suggest that the PVTs are in fact doing a consistently better job of trainee selection than the Area Coordinators, as the percentage of BVWs actually returning to buy drugs at MCI centers in later groups of trainees is not consistently better than in the first group, as the chart below shows.

<u>Training Group</u>	<u>Total BVWs</u>	<u>No resupply trips to MCI</u>	<u>1 resupply trip to MCI</u>	<u>> 1 resupply trip to MCI</u>
1	14	8 (57%)	0 (0%)	6 (42%)
2	11	9 (82%)*	1 (9%)	1 (9%)
3	10	4 (40%)	3 (30%)	3 (30%)
4	16	6 (38%)	7 (43%)	3 (19%)
5	12	7 (58%)*	4 (33%)	1 (9%)
6	16	13 (81%)*	3 (19%)	0 (0%)

* Failure rate equal to or higher than group 1

In the future, we will ask the Area Coordinators to work in conjunction with the PVTs in the selection of BVW trainees. The strength of the Area Coordinator is that he is known and trusted in the community he serves. He also specifically knows influential community leaders. If BVW candidates are selected through these community leaders at the request of the Area Coordinator, the trainee will subsequently feel more social pressure to provide BVW services to his community. On the other hand the PVT by virtue of his paraprofessional training and livestock experience, will be able to recognize the qualities and criteria in potential candidates that will lead to a successfully trained and actively working BVW.

We therefore intend to have Area Coordinators promote the BVW program among community leaders, in order to get them thinking about potential candidates for each training course. Then PVTs will work through Area Coordinators and community leaders to interview prospective candidates. Each PVT will then select the two candidates he believes most likely to succeed. This integrated process will increase the likelihood that the candidate has community support, feels an obligation to serve the community, and has the background necessary to work effectively as a BVW.

5. Limited potential for income generation At the inception of this program, the Technical Advisor did not know what the learning potential of the Afghan BVW farmer/trainee. Therefore, the initial training program was designed conservatively so as to not overload the trainees. The philosophy was that it was better to learn a little bit well than a lot poorly. One major decision in this regard was to leave the principles of vaccination and vaccination techniques out of the core BVW curriculum.

Experience has now shown that the Afghan trainee easily grasps the lessons in the core curriculum and is capable of absorbing more information during the training course. Therefore we propose to include additional lessons in the core curriculum, most notably vaccination.

Inclusion of this information is likely to improve the productivity of BVWs in the field and may increase the percentage that work actively after training. The initial curriculum trained the BVW primarily in therapeutic interventions with some training in preventive medicine, notably the strategic use of anthelmintics. After graduation therefore, the BVW usually had to have access to sick animals to make his entry into the community. If sick animals are not present and activity level is low, the BVW's enthusiasm for his work, which is almost always strong by the end of the training course, will wane and his incentive to take up work at a later date will diminish.

By incorporating training in vaccination, the BVW can begin working immediately on the population of healthy animals in the community and not have to wait for the appearance of sick animals to begin income generation. Community involvement is immediate, and the likelihood for sustained BVW activity is increased.

This training in vaccination will be provided to currently working BVWs during the refresher course to be held in January, 1993. All new BVWs trained in the future will receive this training as part of the core curriculum. In the future, vaccines will be stocked at MCI stores and vaccination guns will be included in the BVW kits.

CONCLUSION

MCI has made considerable progress in successfully implementing the BVW program in a short time. A strong foundation has been laid in the delivery of animal health care services to livestock owners in southwestern Afghanistan. This assessment is based on the number of BVWs working, the amount of medicines they are purchasing and the number of animals they are treating monthly.

Constraints in the BVW program are being identified and creative solutions are being offered. We believe that a higher percentage of BVWs trained should be working and that this can be achieved by implementation of the changes suggested in this report.

In general, the accomplishments of the program should be viewed favorably. Even those BVWs who have chosen not to work have acquired significant knowledge concerning disease recognition, management and prevention. As all trainees are livestock owners themselves, their acquired knowledge will improve the health and productivity of their own flocks, whether they work commercially as BVWs or not.

In November of 1992, the Technical Advisor for the BVW program attended an international conference in Indonesia entitled "Livestock Services for Smallholders." At this conference, papers were presented on numerous community-based animal health care delivery systems being implemented around the world. Many of these programs were similar in design to our BVW program, but none demonstrated the efficiency of field implementation that ours has achieved. Many programs required several years to reach the stage of development that this program has achieved in only 12 months.

It is most unfortunate that O/AID/Rep Afghanistan has chosen to terminate funding for this project a full year before the originally determined date. With another year of funding, as originally planned, this program could readily achieve its stated goals and serve as an exemplary model for private sector animal health initiatives throughout the developing world.

ACTIVITIES FOR THE NEXT QUARTER

From January 1 - March 31, 1993, two additional BVW training courses, 9 and 10, will be completed. A BVW refresher course for the twenty most actively working BVWs from groups 1-5 will be held in Quetta to strengthen their knowledge and give them the ability to provide a broader range of services to their communities. All new trainees and those completing the refresher course will receive vaccination equipment in their kits in the future. The bicycle incentive program will begin as described in the fourth quarter 1992 report.

Field monitoring of graduate BVWs will continue in Afghanistan. Due to the increasing number of BVWs, the monitoring team will be increased to three monitors and the monitoring task divided into 3 geographic areas, east Kandahar, west Kandahar and Helmand.

Efforts will be made to more closely integrate the USAID BVW program with the UNDP vaccination program. The vaccination teams will be decentralized and individual paraveterinary vaccinators assigned to districts. In addition to vaccination activity, these paraveterinarians will be responsible for ongoing supervision and on site practical training of graduate BVWs for up to 10 weeks, or until the BVWs demonstrate the capacity for sustained independent work and acceptance by their communities.

Efforts will be made to reduce the price of drugs to BVWs by broadening our purchasing base and adjusting our sale prices immediately as new inventories are acquired at lower prices.

IRRIGATION AND ROADS

This quarter under review had its ups and downs. Mostly the Helmand and Arghastan rivers were up and down. On December 6,7 and 8, unprecedented heavy rains fell across southwest Afghanistan. People in the villages around our project sites reported that no one could remember the rivers being so high at this time of the year. Roads were impassable for over a week, the approach to the bridge over the Helmand at Darweshan was washed away.

Fifty per cent of our completed work at the Darweshan Intake was destroyed. The Helmand River at the Mian Pushta site cut a new channel and broke through the main canal walls. We are back to start at both sites.

Luckily, the village based canal and primary drain cleaning had not begun. The five Food for Work projects funded under the USAID Cooperative Agreement (amendment seven), in Helmand province, are activities that must wait until work is completed on the Darweshan Intake and Mian Pushta Supply Canal projects, (funded under amendments five and six). These two major project activities have been shifted to UNDP funding. USAID funds will not be used for these activities until or unless the seasonal damage requires additional inputs, of either time or materials.

Two of the village based project activities in Helmand province, the Gharbie and Shargie canals, have been sub contracted to local groups for cleaning. MCI will provide the necessary hand tools and give technical oversight, including survey teams. WFP wheat will be the currency of labor payment. Written contracts for the work have been signed, and procurement of tools has begun.

One village based irrigation project in Kandahar province was begun during this quarter, the Ram Basir Drain in Ram Basir and Marshor villages of Dand district.

MCI was able to obtain a complete set of engineering drawings for the construction Cinva Ram block making machines, from the Taxilia Heavy Mechanical Complex. Additionally, HMC presented a bid of Rupees seven thousand (US\$ 280.) for the production of one machine. These machines will be used for the construction of grain storage bins in the districts participating in the certified seed product program (wheat and maize). It is estimated that between fifteen and twenty five bins will be built. Work on this portion of the cooperative agreement will not begin before early April.

Ram Basir Drain:

Mobilization began during the first week of December, this included the transfer of all required tools to the project site, assignment of one site engineer with overall responsibility for the project and negotiations with local commanders/village leaders for supply of labor and time tabling of project activities.

It was agreed that the work should be carried out on a contract basis due to the low price of wheat in Kandahar and the fact that laborers were unwilling to work for 7 kg of wheat per man day. The village elders appointed a contractor who is responsible for the supply and management of labor, and who supervises the work according to specifications set out by the MCI site engineer. MCI retains the overall responsibility for technical supervision (cross sections, alignment and setting longitudinal gradient) and can refuse payment of wheat unless work is carried out according to these specifications.

A total of 77 metric tons of food wheat will be payable under the following schedule;

- 30% payment on completion of 25% of the work.
- 30% payment on completion of 50% of the work.
- 30% payment on completion of 75% of the work.
- 10% payment on satisfactory completion of all work.

The balance of 7 metric tons wheat (WFP allocation for this project is 84 metric tons) will be used to purchase materials and to construct two vehicle crossings. The crossings will be constructed of reinforced concrete pipe sections and locally available fill material.

The first payment of 23 metric tons was made on December 23, 1992, under the terms of the agreement.

Excavation work began on December 7, 1992 and to date approximately 6,965 cubic meters (cum) or 30% of the silt deposits have been removed. Approximately 500 meters of existing traditional drain have been realigned to afford a more efficient layout. Excavation work is under ongoing supervision of the MCI site engineer, aided by a full sized sectional template custom made for this project.

Work activity has employed an estimated 1,728 man days, although this figure is an estimation, as labor supply is the responsibility of the village contractor. It should be noted that the present work rate averages 4 cum of silt removed per man day, and this is an exceptional output by any standard. At this rate of work the duration of the project can be reduced from six months to three months.

Darweshan Intake:

The second phase work on the Darweshan Intake began in early October. The first month of implementation was spent on repairing HCC bulldozers and dump trucks. Spare parts were purchased in Quetta and the work was performed by HCC mechanics at the project site. November saw the earth work begin, with the construction of the intake bund, to channel river water into the canal intake. At the same time, work was started on repair of the intake gate mechanism. Then came December. The following is a site report from the MCI Engineering Advisor.

The greatest problem encountered in project implementation has been the unprecedented flooding throughout the middle Helmand from 5/12/92 to 7/12/92. Specific damage at the Darweshan site included the total destruction of the repaired portion of the Hazar Juft bridge, wash out of the temporary berm at the intake and flooding of the diversion channel (which survived intact and performed the designed function). As a result of the flood, 6 working days were lost during high water, and an additional estimated 3 working weeks should be added to project activity schedules. The loss of the river crossing has also created delays in the supply of materials, food wheat and also hindered general site access. In a meeting held in Darweshan it was agreed that two bulldozers currently working on the channel should be transferred for work on the bridge repair, which is estimated to take a minimum of 5 working days.

On 30/12/92, the UNOCA office in Lashkargarh reported that representatives of the Lashkargarh Shura had forcibly removed the one T-171 bulldozer from the Darweshan site in order to carry out emergency repairs to the Boghra canal. It is also reported that the shura is putting pressure on UN and MCI national staff to supply funds and/or fuel inputs for work on the Boghra canal. The loss of one bulldozer has serious implications for the time scale of work in Darweshan.

Mian Pushta Canal:

Work on Mian Pushta begin in November with the establishment of a site camp and the assignment of two site supervisors. Appropriate materials for the construction of a river channel diversion was located and local production of gabion baskets was started. Then the December rains. The following is a site report.

Specific damage at the Mian Pushta site included an estimated additional 1,000 cubic meters of destruction to the river embankment. The destruction of the bridge at Hazar Juft has also caused critical delays in the supply of equipment and materials to the site. This has delayed the implementation schedule by no less than ten days.

PVO Support Project
 Mercy Corps International
 Cooperative Agreement No. 306-0211-A-00-0961
 October to December 1992

LINE ITEM	SUB-LINE ITEM	TOTAL	CUMULATIVE				TOTAL	CUMULATIVE	% OF	
		BUDGET	EXPENSES 30/09/92	OCT EXPENSES	NOV EXPENSES	DEC EXPENSES	QUARTER EXPENSES	EXPENSES 31/12/92	BUDGET EXPENDED	REMAINING BALANCE
MANAGEMENT										
	MANAGEMENT	518,150	298,130	22,228	12,598	26,810	61,636	359,766	69.43%	158,384
	TUSVM BACKSTOPPING	40,020	22,662	1,935	0	4,645	6,580	29,242	73.07%	10,778
	SUBTOTAL - MANAGEMENT	558,170	320,792	24,163	12,598	31,455	68,216	389,008	69.69%	169,162
PROGRAM ACTIVITIES										
	AFGHAN STAFF	513,700	364,078	20,552	16,832	1,828	39,212	403,290	78.51%	110,410
	CONSULTANTS	139,870	89,136	0	56	1,792	1,848	90,984	65.05%	48,886
	LABOR	195,000	305,462	0	0	0	0	305,462	156.65%	(110,462)
	TRAINING	90,500	18,737	510	1,486	71	2,067	20,804	22.99%	69,696
	PLANTING MATERIALS	145,000	91,362	421	75	247	743	92,105	63.52%	52,895
	IMPLEMENTS AND TOOLS	280,500	44,012	121	1,143	1,127	2,391	46,403	16.54%	234,097
	MEDICINES AND SUPPLIES	71,750	23,317	6,787	7,647	7,825	22,259	45,576	63.52%	26,174
	TRAVEL & PER DIEM	273,300	188,920	9,642	(4,551)	21,557	26,848	215,568	78.88%	57,732
	OTHER DIRECT COSTS	110,500	592	0	0	0	0	592	0.54%	109,908
	CAPITAL EQUIPMENT	268,500	156,511	0	0	645	645	157,156	58.53%	111,344
	SUBTOTAL - PROG ACTIV	2,088,620	1,282,127	38,033	22,688	35,092	95,813	1,377,940	65.97%	710,680
MONITORING										
	MONITOR/INFO. SERVICES	132,000	60,960	5,470	2,545	3,720	11,735	72,695	55.07%	59,305
	SUBTOTAL - MONITORING	132,000	60,960	5,470	2,545	3,720	11,735	72,695	55.07%	59,305
ADMIN										
	OFFICE OPERATIONS	145,000	78,822	5,223	9,029	6,209	20,461	99,283	68.47%	45,717
	OVERHEAD	436,210	266,376	12,019	2,681	12,505	27,205	293,581	67.30%	142,629
	SUBTOTAL - ADMIN	581,210	345,198	17,242	11,710	18,714	47,666	392,864	67.59%	188,346
TOTALS		3,360,000	2,009,077	84,908	49,541	88,981	223,430	2,232,507	66.44%	1,127,493

APPENDICIES