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USAID Quarterly Program Report

Emergency Relocation of Flood Affected Populations Vose District, Tajikistan.

Grant Number: 119-0001-G-00-9006

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Implementing Agency

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1. Background

On April 9, 1999, Mercy Corps International signed a grant agreement with USAID for the amount of $700,000. This grant was established to assist flood-affected populations in the Vose District of Tajikistan.

The aim of the project is to construct a new community in a region that is not subject to flooding, and thereby bring stability and security to the residents who had homes destroyed during devastating flooding in 1998. This community will be supplied with all necessary utilities including electricity, sanitation facilities and clean running water.

The program is expected to directly benefit more than 400 individuals, a large percentage under the age of 16, and impact 4,000 family and community members in the flood affected region.

Due to a misunderstanding on the precise start date for project implementation, Mercy Corps did not begin the project until June. At that time, a Project Manager was identified, and he arrived in country at the end of July.

2. Status of the Emergency Relocation Project. (Grant 119-0001-G-00-9006). Operations carried out during the reporting period.

2.1 August Operations – Agreements.

- At the end of July of 1999, the program was assessed for its viability to commence late in the year, as construction is not traditionally carried out during the winter months. After discussion with local residents, it was decided to commence the program after some of the engineering issues had been dealt with. *Engineering issues included earthquake proofing the structures and* general design considerations to make the structures more acceptable to the beneficiaries.

- In August, Mercy Corps staff participated in a number of meetings with the local Vose Hukumat to secure agreements for land, water and power. These agreements were secured, and further operations could then proceed.

2.2 September - Planning and Development

- The proposed building site and the building design were examined during September and early October. The site was an area of land donated to the program by the Vose Hukumat. The site had been used extensively for the cultivation of cotton, and it was important to properly assess the site for salinity levels and composition. Properly trained and qualified geologists carried out the land survey, and a full report was supplied to the construction team.

- At the same time, a team of engineers worked on a full town plan for the site and prepared full engineering plans of the homes. These plans included seismic designs, making the homes resistant to earthquakes of up to 8.5 Richter.

Surveyors then visited the site and correctly marked the location of all homes to ensure that there would be no land conflicts at the conclusion of the program and to ensure that each home was correctly situated.

- Full blueprints and geological surveys were obtained from all teams, allowing construction to commence in October.

2.3 October/November/December/January/February – Construction

2.3.1 The program is now well into the construction phase. Construction commenced in mid-October, once all reports had been received from the engineering teams and the various ministries responsible had given the final approval. The current status of the program is:

- Foundation footings have been dug and most foundations are fully completed. All foundations are expected to be complete by the end of February, however this is dependent on weather conditions. 68 foundations are complete.

- Wall construction commenced, with the outside walls being constructed of fired brick. This was necessary because of weather conditions (see Problems section). As of February 15th of 2000, 26 outside walls were complete and a further five were in various states of completion. The inside walls are being constructed of a more porous material. These walls are easy to construct and make use of more readily available materials. They have a further advantage of being easy to renovate in the future. Currently, five inside walls are complete.

- Roofing commenced once material supplies started to arrive from vendors. Currently, one roof is complete and four more are in various stages of completion.

- Material supply is fully underway with companies contracted to purchase and ship cement, timber and other commodities to the site. A logistics team is working from Mercy Corps' Dushanbe office to ensure a smooth and rapid supply of material to the site.

- A viable water point has been identified and is being worked on. The bore site is in poor condition and will require extensive work but it is expected to be operating and viable by the end of the project. The bore itself has been fully cleaned and the water quality was tested. The bore is suitable for the construction site and will also be suitable for connection to other homes in the area. The resulting works are expected to supply approximately 120 households.

- All work carried out is being completed under the auspices of the UNWFP Food for Work Program. Local residents and beneficiaries are working together under this program and are paid in wheat flour. There are currently more than 250 workers on site and on field projects such as material collection and handling.

3. Projected Operations for the next reporting period.

3.1 The program is expected to continue operations through to the projected end date, which is currently May 31st of 2000, following a recent no cost extension. General operations will include the commencement of the interior wiring and bringing homes to a "lockup" stage. At lockup stage, we hope to fully involve all able beneficiaries in the final construction by allocating houses and providing the necessary materials to fully complete the homes.

3.2 Foundation construction should be completed by the end of February, although the site is experiencing some water table problems that will have to be rectified before the final foundations can be completed. This will involve improving drainage on the site. Negotiations are in place with machinery operators to carry out this work before the end of February.

3.3 The water supply project is currently in progress, and all operations should be completed by April. The electricity supply has been contracted and construction has commenced.

4. Monitoring

4.1 Monitors from our Partner Agency, FOCUS USA, have selected beneficiaries. In December, Mercy Corps sent an independent team of monitors to the region to assess the effectiveness of the beneficiary selection and to report on any irregularities. This improved public perception of the program and dispelled any fears of favoritism or nepotism.

4.2 A team of two Mercy Corps engineers is monitoring all aspects of the construction.

5. Problems and difficulties.

Problems in implementation include:

- Weather conditions
- Supply of Materials
- Worker Motivation

5.1 Weather difficulties

- Weather Conditions are the main problem faced by the construction team. The program itself was designed as a summer construction program, which would utilize local labor to manufacture mud bricks for the construction of homes. During the hot months of summer the mud bricks would dry rapidly and could be easily used on the site. However, due to delays in program funding and a late start date in August of 1999, the best months for construction were missed. August and September were spent obtaining land agreements, surveying the site and correctly engineering the homes. As the land agreements had not been

signed, the Hukumat was unwilling to provide land for the construction of mud bricks. This would later cause difficulties in program implementation.

- Weather conditions have made site operation difficult, as the local soil absorbs a high amount of water and takes a long period to dry. This causes problems for the machinery used on the site, as after even a small amount of rain the site becomes boggy and trucks are precluded from entering the site.

- During the construction period, the site is often subject to snowfall. This can prevent work on foundations, because freezing conditions can cause cracking leading to poor foundation structure. Any foundation that freezes during construction will become unstable and will have to be replaced. On these days, the site foreman halts foundation construction.

- Snow and rain are also very detrimental to uncovered structures made from sun dried earth bricks. These blocks will rapidly deteriorate upon getting wet and will be useless for construction. Walls left exposed to rain will rapidly "melt", and if exposed to snow, can crumble due to internal freezing (this is if more than 3-5 % water exists within the block). This makes using these blocks in winter very difficult.

- Regular and unpredictable rainfall makes the construction of mud bricks during this period extremely difficult. The cool weather means that the bricks can take up to two weeks to fully dry, providing there is no rain to raise humidity. During this period, they are very susceptible to damage by poor weather. Warehousing these bricks for drying purposes is not possible, due to the space required (it would take a warehouse 1.7 Km long and 1.7 Km wide to warehouse dry all the bricks for the program).

- Worker attitude is also an important factor. The workers on the site do not traditionally build during the winter months. Secondly, they do not make earth adobes during this period. As a result, there is much of resistance and poor motivation towards making these bricks at this time of year, and very poor rates of construction result.

5.2 Solutions to weather problems

Obviously we cannot change the weather patterns, but certain measures have been introduced to overcome the difficulties of winter construction.

- Road construction onto the site has enabled us to access most of the site without too much difficulty on most days. On the days where this is difficult, tractors working on the site take materials from a central unloading point to the workers. Although this necessitates some double handling, it prevents the breakdown of the access road by trucks continually becoming stuck. The soil composition is such that road construction for heavy vehicles is difficult due to the amount of material required, so a short access road has been constructed with run off points to the site areas. A full road will be constructed once the bulk of the heavy transport has been concluded.

- Bricks are our major problem, as we are unable to make large numbers by hand during this period. To solve this we are tackling the problem in several ways:
  - Mercy Corps is purchasing fully fired stabilized blocks from the Kuljab brick factory. These blocks are ideal for building in the winter. They are fully stabilized and are not affected by poor weather. They are currently being used to construct a strong outside wall. A secondary advantage is that they are considerably more earthquake resistant than earth adobes. However, we are faced with a major supply problem, as the factory is only capable of producing a finite amount and this amount is dependant on regular gas flow. Gas flow in the region is unreliable and this often reduces the number of blocks available.

  - A second problem we are facing is political. Currently, due to the failure of the Northern Alliance forces in Afghanistan and the movement of the various warlords in the region, there are a large number of houses being constructed in the region by the local military commanders. One of these commanders has ties to the brick factory, and he and his associates regularly come to the factory and remove the bricks. This seriously limits our supply. Trying to prevent this in any way is foolish at best and could have serious repercussions. Unfortunately, this leaves the project with a very serious supply problem.

  - The alternatives to this brick factory are two "micro plants". One operates in Kuljab and the other in Vose. These are capable of making up to 10,000 blocks per day combined, but their operations are restricted by electricity problems. At present, there seems to be no solution to this problem as the electricity authorities are unwilling or unable to help.

  - To make up for the shortfall in blocks from these sources, Mercy Corps has obtained the services of a demolition company that is removing derelict buildings from the region. This company is able to supply us with a large number of good-quality recycled blocks.

  - A final solution that has presented itself in the last week has been to employ the services of a portable brick making plant. Information has been received that such a plant is available in Dushanbe, and negotiations are underway to have this plant moved to the site to begin operations. This plant will produce compressed earth blocks that require minimal drying and can be used two days after manufacture. These are fully stabilized and though initially will be used to construct inside walls, they will also be suitable for the outside of the structures.

5.3 Supply Difficulties.

- The program has been faced with some additional supply problems. One major problem was with a company that was contracted to supply cement for the program and who failed to deliver on time. The company finally delivered the required quantity 1 and ½ months late. This necessitated purchasing materials via retail outlets to cover the period of demand. The company has been heavily penalized and this has offset the added cost of the materials.

- Brick supply problems are our major problem as explained above. This is currently our most pressing problem and we are using a number of strategies to overcome this delay.

- Additional delays have been caused by suppliers who are continually challenging contracts and trying to renegotiate on the day of signing, once they have already indicated that they are satisfied with the process. In the case of one electrical supply contract, this process took five weeks, significantly delaying the implementation.

- Timber is not produced in Tajikistan and must be imported from Russia. This is constantly intercepted at customs and held with no explanation, once again causing delays. However, the timber is slowly arriving at the site and we expect to have final deliveries by the end of April at the latest.

5.4 Worker Motivation.

- Worker Motivation was initially a serious problem for the program, but it now appears to have been largely solved. Part of the problem stems from the systems that were in place during the years of the USSR that led to a relaxed system where timelines were not particularly important and where much was supplied to the workers regardless of any inefficient work practices.

- A second problem is one of payment. Currently, flour prices are suppressed due to the amount of flour available via humanitarian sources and via large-scale programs through UNWFP and USDA. This means that the possible income available under the current food for work agreements is reduced. Initially, many of our motivation problems were caused by workers not believing that they would be paid and secondly that the payment would be insufficient for them and their families. We have addressed this by implementing productivity bonuses whereby teams that increase work performance will be given an extra bonus. This does not impact the agreement with UNWFP as this is within the program guidelines and it has helped markedly in increasing worker output.

- A third problem was the ever-present rumor mill where the word went around that "other agencies" were paying 10 Kg a day for work and more. This hampered employee relations.

- Finally, worker motivation will always be difficult during the winter period. The building site is subject to regular rain and snow, and conditions are difficult at best for the workers. However, now that the bulk of the labor issues have been addressed, this is one of our least problematic issues.

6. Summary and Possible Program Improvements.

6.1 Some problems that existed when the last report was compiled have now been solved, but the challenges of completing a winter building program remain. However, work is progressing and is expected to be completed by May 31st.

6.2 Food for work, while being a viable and realistic option in this region, is beginning to loose its effectiveness. The large amounts of food available in the area have reduced its impact and often burden the beneficiary with the problems of generating income from this source. Future programs that pay a stipend may be more successful in the future.