

# **REPORT ON VISIT TO BOLIVIA BY THE BOARDS OF QUAKER BOLIVIA LINK – U.S. AND QUAKER BOLIVIA LINK – U.K. APRIL AND MAY 2009**

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## **I. Background**

The visit was made by Pat Close and Graham Johnson, members of the QBL-US Board; Tim Thompson, QBL-UK trustee; Robert Vincent, coordinator for QBL-US; and Pattie Richmond, coordinator for QBL-UK. Both the QBL-US Board and the QBL-UK trustees, endorsed this visit, to follow up on a visit by the QBL-US Board and QBL-UK trustees in March 2006, and an earlier visit by some UK trustees in November 2003.

The visit by the US Board and UK trustees was, in broad terms, carried out to reasonably assure that funds being provided by the US and UK are being used effectively. To accomplish this we visited some projects and discussed issues with community members, FQBL Board and staff, and representatives of other organizations. The objective of these discussions was to provide a basis for best carrying out QBL's mission to reduce poverty among the indigenous peoples of Bolivia through the funding of community-based projects which secure food sources, promote better health, and generate income. All visits were conducted in Spanish, with translation from Aymara as necessary. As a result of scheduling conflicts, there were several visits that Pat, Graham, and Tim were not able to make; however, Robert and Pattie were able to make. Following is a link to the web album of photos Graham took during his visits:

<http://picasaweb.google.com/lh/sredir?uname=gdjohnson5&target=ALBUM&id=5348361919223967809&authkey=Gv1sRgCMHwqbS5nvKm5gE&authkey=Gv1sRgCMHwqbS5nvKm5gE&feat=email>

## **II. Visits to Projects**

Brief notes on the visits to projects appear at the end of the report.

The visits to projects focused on ongoing and recently completed projects. On our visits we were warmly welcomed and the project communities spoke highly of the FQBL staff and of the positive impact of the FQBL work on the communities. We were often welcomed with meals or even celebrations. Most communities, if not all, spoke to us about new project proposals and sometimes this

appeared to be the main purpose for the community members meeting with us. We arrived at one community unannounced at around noon and were provided with a bowl of chicken and vegetable soup. There were several instances of communities indicating that the FQBL staff went further in working with them than did representatives of other NGO's that they had worked with. Being able to interact with Gabriel Valdivia, the consultant who developed the evaluation of the impact of the 2004-05 projects provided an insightful perspective on the FQBL efforts and it is evident that this evaluation has been a useful tool in improving the way we work with communities in the development and implementation of projects.

We found that many of the projects could be readily visited by public transport. Visits to some communities required hiring a taxi or other vehicle as public transport does not exist or the transport schedules are so limited so as to be impracticable. Some visits involved a combination of public transport and the hiring of a taxi or other vehicle. The pros and cons of acquiring a vehicle for FQBL were discussed openly with FQBL Board and staff.

It became apparent from our visits to projects and interaction with FQBL Board and staff as well as the consultant, that significant benefit would be derived from narrowing the geographical focus of future projects: geographically dispersed projects reduce the effectiveness of staff as they require increased amount of time traveling to projects and diminish the impact of a project.

Most communities spoke to us about further project proposals and in many cases it was clear that this was the main purpose in meeting with us. In all cases we listened and referred them to the FQBL staff as the first step in giving consideration to their proposals.

It became apparent from visits to several greenhouse projects that it would be useful to obtain more mal nutrition data. We should request this information for the PRADERA projects funded by QBL.

Most of the projects we visited were completed projects and some of these were completed before most of the current staff joined FQBL. We found that the current staff has made a point of visiting these completed projects to retain a connection with the communities and to pursue appropriate follow up with the communities.

The following points were raised in individual visits.

**Chuchulaya** -- The current source of fresh water is not sufficient to meet community needs during the dry season. Some pipes, whether in old or new systems, have been left unsupported; one pipe, supported by two temporary-looking poles, is over a meter off the ground and over a meter away from the bank plus being free standing for over 30 meters. Pipes should be lengthened and dug into the ground so as to provide better support. FQBL should work with the community to fund a larger fresh water storage tank, to increase storage capacity, if there is a convincing argument that such a tank would effectively carry the community through the dry season.

**Villa Puchuni** – Some minor but important work for the drinking water system had not been completed. Some pipes are not adequately protected: some are not buried deep enough to be protected from frost and joints are not adequately supported and protected. If corrective measures are not taken there is the possibility of pipe breakages and leakages. FQBL should work with the community and municipality

to establish a community consensus supporting corrective measures before giving consideration to funding such measures.

**Huancollo** -- The community is concerned about the adequacy of the layout of the irrigation system as set forth in the project approval document. FQBL and PRADERA should consider funding a redesign that would take the pipe along an area less susceptible to landslides. This design change, with an estimated cost of \$860, should be considered for funding if other cost saving measures cannot be taken without compromising the integrity of the project. Robert reports that the current system provides irrigation at a cost of \$679 per hectare, much less than the Bolivian national standard of \$3,500 per hectare. FQBL and PRADERA should also consider funding a Cusnavi community request to bring water from the Huancollo tank across the river for 120 meters (390 feet) in pipe rather than the current dug out canal in order to minimize water loss at a cost of about \$2,600; however, this should be explored only if municipal funding is not available.

**Khara Khota** – FQBL should work with the community to develop a business plan for expanding the market for their trout raised through the pisciculture project; they currently have a very limited market to hikers and tourists passing through. Consideration must be given to competing pisciculture projects. The volume of water entering the hatchery needs to be confirmed. Obtaining an advisory report on possible atmospheric contamination on bodies of water used for pisciculture should also be pursued. The community is interested in expanding the trout pisciculture project to other nearby lagoons. FQBL should explore this expansion only if supported by the business plan.

**Qhotia (Alto Peñas)** – The community has received some training on llama breeding. FQBL should work with the community to precisely identify the type of training needed that is consistent with the goal of maintaining healthy llama herds. However, if the long-term market outlook for llama wool or meat is not favorable, further training may not be justified.

**Pajcha Peñas** -- It appears that the “expensive” drip irrigation systems were causing more trouble than they were worth and with any future project; consideration should be given to hand watering for what are only domestic-sized greenhouses. Further pest control training should be provided to assure fuller understanding so as to minimize losses from pest infestation.

**Sayhuapampa (Carabuco)** -- The need for the provision of sheets / tarpaulins to facilitate harvesting, drying and storing was raised and appears to be indicative of a lack of previous follow up. There is concern that that the success of the project could be jeopardised by the lack of provision of low cost sundries. If this is the case, the project participants need to be encouraged to include such items in subsequent experimental projects and we need to provide for contingency funding for items not included in the initial project budget that are subsequently identified as beneficial.

**Sacasaca** – The drinking water committee president is the only person authorized to access the project bank account and was not able to make the account book available during our visit. FQBL, through PRADERA, should work with the community to take immediate action to require at least two individuals to sign checks and to make the bank account information available to the community.

**Mocomoco** – The community has experienced significant problems with the grain mill acquired under a QBL-funded project such that the mill has not effectively served the community’s needs. FQBL should

work with CEPRODIM to establish whether it would be most effective to cover the cost of the most recent repairs of the motor or to purchase a new motor. Consideration should also be given to purchasing a stabilizer or surge protector to extend the life of the current motor or a new motor.

Based on Lourdes' discussion with a contact in the Ministry of Health, Robert has changed the performance indicator for the three chicken projects in the Mocomoco area from "improve nutrition by 20%" to "reduce the incidences of malnutrition by 2%." This may appear to be an insignificant change, but discussions with the Ministry of Health indicate that this is a realistic level of improvement for the type of project we are implementing and the time frame involved. Since these are the first projects that we will be measuring the impact on nutrition through chicken projects, Robert feels that this is a good performance indicator until we can get better data on the actual impact of the projects. The Ministry of Health has measured the malnutrition levels of the children in the area and this information will be used as a baseline for the current projects. FQBL and CEPRODIM should provide resulting nutrition data.

Following are Tim's observations resulting from visits to several chicken house projects. Greater consideration should be given to providing better housing and feeding for existing poultry, a simple and less risky option. Some roofing consists of a single galvanized corrugated sheet with a corrugated plastic 'roof light'. This tends to make the chicken house too hot during the heat of the day and too cold for comfortable roosting on open slats during frosty nights. Extreme conditions, particularly with non-native breeds, will be detrimental to both egg production and general health. While the adobe walls provide good temperature control, consideration should be given to adding insulation to the roofing.

### **III. Meetings**

We met the people in the communities as well as the mayor of Colquenchá. Everyone spoke very well of the staff and achievements of FQBL. The mayor was quite pleased with the QBL support for the drinking water system and greenhouses in Colquenchá.

Pat met with the medical doctor supervising the department of health (SEDES) for the San Pedro de Tiquina area. The doctor was quite optimistic about the outlook for the Amacari Medical Center and believes that the Center will regain its patient base and attract additional patients.

In addition, Robert met with the director of CEPRODIM to strengthen joint efforts to support communities in the Mocomoco area.

Tim and Pattie met with representatives of the United Kingdom embassy to bring greater awareness by the UK embassy of QBL efforts in Bolivia and to discuss environmental concerns of mutual interest.

There was also significant interaction between QBL-US and QBL-UK representatives allowing for face-to-face communication, rather than just by internet and telephone calls, regarding the future of QBL and the oversight roles of the two boards.

We met several times with the FQBL staff and Board members, including a half-day retreat at a conference facility in the same building as the FQBL office. Graham was able to meet with Board members in their review of the contract proposals for the upcoming audit of the 2008 financial statements; this allowed for exchanges on the importance of internal controls. A recent addition to the

FQBL Board has a strong financial background; this is a welcome addition. We also talked extensively with individual FQBL staff and Board members. QBL-US representatives were able to meet with the FQBL Board to go over governance issues of mutual concern. The half-day retreat was primarily a workshop to discuss the “Evaluation of the 2004-2005 Projects” and secondarily the “FQBL Strategic Institutional Plan for 2008-2012” with the consultant, Gabriel Valdivia, who prepared these two documents. The workshop focused principally on the following issues, the last four of which were beyond the scope of the evaluation and strategic institutional plan. There was general consensus on the actions to be taken for items A. to M.

- A. FQBL should narrow its geographical focus as the impact of a project is diminished if projects are geographically dispersed. Such action should also increase effectiveness of FQBL staff members by decreasing the time spent travelling to projects. This could be done by concentrating on one or two municipalities. Our presence in only one or two municipalities should lessen the risk of ‘not quite’ completed projects and facilitate follow up by FQBL staff.
- B. The importance of transparency was discussed. Toward this end, FQBL has formalized a conflict of interest policy, has made significant progress in documenting internal controls, and has gone through a full financial audit for 2007 and is preparing for an audit for 2008.
- C. There was agreement among us and the consultant that since 2005 there has been significant progress toward reaching the four pillars of QBL’s long-term goals
  - 1. Improve the institutional capacity of FQBL to include improved accountability to QBL-US and QBL-UK.,
  - 2. Expand working relationships with other organizations so as to maximize impact of funded projects.
  - 3. Seek further financing for projects.
  - 4. Improve the monitoring and evaluation of projects.
- D. FQBL is recognized favorably for carrying out certain types of projects: drinking water and greenhouses. QBL should capitalize on this rather than significantly expand the types of projects it funds.
- E. Communities and FQBL should work closely with municipalities. The new Bolivian constitution has placed a priority on clean drinking water and health increasing funding to municipalities to support these types of projects. QBL joint funding with municipalities will allow limited QBL funding to be spread over a greater number of projects. The new government priorities should facilitate working with other NGO’s. FQBL should provide a guide for water projects to municipal governments, in part to increase the municipalities’ awareness with FQBL’s capabilities. Care must be taken to assure that municipality involvement does not become a substitute for community involvement.
- F. QBL has provided limited funding for investigative projects, such as forestry, bee keeping, and strawberry cultivation. These types of projects have allowed university students to use an investigative project to be the basis of their required thesis. The consultant felt that these projects were unnecessary as they replicated what had already been done. Projects should be relevant to the broader needs of a community and investigative projects are not that related to these broader needs. It is questionable whether the projects contribute directly to improving marginalized communities.

- G. Projects are more likely to be successful if there are already effective community organizations, such as associations of producers; such organizations have already brought the community together in some fashion and have established rules of operations. The consultant noted in his evaluation of 2004-05 projects that project committees were more likely to fail where there were not already established community organizations. Therefore there is the apparent benefit of funding complementary projects in a community – with the initial project, a greater sense of community evolves and the project committee is strengthened as a mechanism for accomplishing community tasks and this in turn increases the chances of success of subsequent projects. This poses a dilemma – funding a project in a community that has previously received funding versus funding an initial project in a needy community. How should we trade off effective use of financing and community needs?
- H. Training for communities needs go beyond providing communities with useful information especially in those cases where the training involves improving hygiene habits. FQBL may want to consider working with health organizations to provide training to communities. It is also important to link the FQBL technical staff with the health professionals serving project communities. In some communities diarrhea continues because improved hygiene habits have not become ingrained.
- I. There is concern about the long-term viability of chicken projects in the Altiplano. Raising cuys (guinea pigs) may be a viable alternative. Families may raise chickens for their meat and eggs; however, some families are opting out of raising chicks as chick mortality is high in the cold of the Altiplano. It has been mentioned that there is a lack of good feed for chickens. Cuys can eat house scraps, are less susceptible to illnesses, and their manure is dryer. The cuys' dryer manure would be better fertilizer for any associated greenhouses.
- J. FQBL should become more involved with a community prior to project approval to better assure that the entire community is supportive of a proposed project. Assistance may be needed in resolving differences between community members. A social consensus minute of all community members may be appropriate. There should be a formal process for resolving differences. If this is pursued, increased level of effort by FQBL at the front end should be offset by reducing costs in the project execution stage.
- K. In reviewing project proposals, it is important to consider the impact of the project on the environment, gender, and indigenous inclusion. Lourdes has developed a checklist that should facilitate an identification of and a more in-depth analysis of these matters. The methods for verification of project impact should be addressed early on. Robert will be reviewing this checklist with the US Board in the near future.
- L. The Bolivian Institute for Standards and Quality (“Instituto Boliviano de Normas y Calidad”) has issued cost and quality standards for all types of projects, especially water projects. It would be useful to review these standards in order to assess the cost effectiveness and quality of projects.
- M. FQBL has requested financial partnership agreements from QBL-US and QBL-UK in order to obtain full non-profit status in Bolivia. QBL-US and QBL-UK are developing such agreements and will provide to FQBL.
- N. The consultant noted that where water systems have been put in place, migration out of the communities has decreased. This is consistent with QBL’s mission. An indirect benefit has been that property values in the communities have increased.

- O. There was an open discussion on the potential purchase of an automobile for FQBL with the goal of minimizing the travel time by FQBL staff to project communities. Cost information was provided by FQBL staff. Staff that does not currently drive has indicated a willingness to take driver education classes on their own. FQBL was asked to provide additional qualitative and quantitative information regarding such a purchase and to consider alternatives to auto purchase. A number of issues were raised particularly with respect to staff health and safety: working alone in remote places, breakdowns, and driving long distances at the beginning and end of long days in the field. QBL-US and QBL-UK could clearly see that there are certain benefits but expressed the concern that in this period of economic downturn, the cost of a auto purchase cannot be justified coming from the US and UK budgets. Where public transport is not viable, the use of hired vehicles with drivers may be necessary and the cost of such transportation reflected in project budgets.
- P. The FQBL administrator/accountant reviewed the actions being pursued with regard to the internal control recommendations contained in the report issued by the auditors in connection with the audit of the 2007 financial statements. Action has been completed on over 75% of the recommendations. We urged FQBL to critically review the recommendations and weigh the management control benefit of each recommendation with the cost of implementing the recommendation.
- Q. As a result of our visits to projects, conversations with FQBL Board and staff, and the evaluation of 2004-05 projects, the QBL-US Board representatives felt that it would be appropriate to develop a QBL-US "2009-10 Terms for Funding" document. Working with US Board representatives and FQBL staff, Robert subsequently drafted such a document setting forth the priorities as to types of projects to be funded and matters meriting increased focus in project proposals. Following are the project funding priorities proposed: projects to strengthen existing deficiencies, water and irrigation projects, other agricultural projects, and training projects.

QBL-US met with the FQBL Board (Ercilia, David, and Valeria) and focused on the following matters:

- A. Even four years later, problems concerning Hilario Quispe continue. Efforts have been pursued to recover documents Hilario has been keeping and to address the financial irregularity. FQBL has sought legal counsel and has been advised that FQBL may have insufficient legal standing to pursue settlement of matters in the Bolivian courts. The conditions Hilario wishes to impose for settling matters are unacceptable to FQBL and QBL-US representatives were fully supportive of FQBL's position. Although Hilario had indicated a willingness to meet with US and UK representatives and was aware of our visit, attempts to schedule a meeting with Hilario and US and UK representatives five days hence were not successful. FQBL is considering terminating further recovery efforts and such action would in no way diminish the claim that FQBL has against Hilario for the debt. Again QBL-US representatives are fully supportive of proposed termination action if fully documented.
- B. A two-year probationary agreement has been entered into with the municipality of San Pedro de Tiquina for the operation of the medical center at Amacari. After two years, the agreement will be reviewed and a determination made as to whether to renew the agreement for five more years or to turn the medical center over to the government. INELA (Iglesia Nacional Evangélica Los Amigos) has been unable to either staff or find funding to staff the center. The community

has sought support from doctors provided by the Cuban government in order to meet the medical needs of the community.

- C. Improved communication between the QBL-US and QBL-UK Boards with the FQBL Board is hampered by Ercilia's lack of Internet connection in her home. Ercilia's husband can bring home Internet messages sent to her but is difficult for her to respond to Internet messages. The most effective means of communicating with Ercilia appears to be by phone.
- D. Another meeting was scheduled shortly before the departure of QBL-US Board members to discuss the roles of the three Boards and three coordinators; however, unfortunately, this was not possible due to sudden worsening of the health of Ercilia's husband's grandfather.

#### **IV. Achievements**

During the visit we were able to:

- A. Visit various projects to personally demonstrate to the members of the communities our interest in the success of their projects and then be able to brief donors on the effective use of their contributions.
- B. Allow the FQBL Board and staff to directly observe the interest that both the UK trustees and the US Board have in the work being accomplished in Bolivia.
- C. Strengthen personal contact between all three Boards so as to better understand the perspectives of the two other Boards and their staff. Discussion at the half-day workshop was particularly beneficial toward this end.
- D. Meet with representatives of other organizations such as the mayor of Colquencha, the medical head of the governmental health services in the municipality of Tiquina regarding the Amacari Medical Center, and staff of the UK Embassy in La Paz.
- E. Confirm that progress is being made to strengthen internal controls and other measures to increase the transparency of FQBL.
- F. Take a great number of photographs for publicity material for QBL.
- G. Come to a consensus that FQBL should seek to narrow its geographical focus.

#### **V. Acknowledgements**

Many people helped to make the trip possible and make it a beneficial experience for all. We cannot mention all of them, but must particularly thank Ercilia Chipana and other members of the FQBL Board and Lourdes Tantani and the FQBL staff (Sandra Laura, Rubén Ruiz, Roxana Alanoca, and Ruddy Ortuño) for the outstanding welcome that they gave us. We recognize that considerable coordination effort that went into preparing for this visit. Likewise, the community members involved with the various projects visited and the staff of other NGO's provided us with most memorable welcomes. Robert Vincent and Pattie Richmond provided invaluable help before and during the visit and their comments on this report.

Pat Close, Graham Johnson, and Tim Thompson



## VI. Itinerary

Date	Visit Location	Commentary	QBL-US and QBL-UK	FQBL Personnel
15 April	FQBL Office	Review of audit proposals	Robert, Graham	Ercilia, Dora, Lourdes
17 April	Colquenchá	Greenhouses, Drinking water	Robert, Graham	Roxana
20 April	Pajcha Peñas, Suriqiña (San Calixto)	Greenhouses, Drinking water	Robert, Graham, Pat, Tim, Pattie	Sandra, Lourdes
20 April	FQBL Office	FQBL Board Meeting	Robert, Pat, Graham	Ercilia, David, Valeria, Lourdes
21 April	Sayhuapampa (Carabuco)	Experimental grain improvement	Tim, Pattie	Roxana
21 April	Tuxajahuira, Pallcapampa	Investigative projects, Drinking water	Robert, Pat, Graham	
22 April	Pampa Colani, Pallcapampa	Fruit trees investigative project, Latrines	Pat, Graham	Roxana
22 April	Choquecoa, Huarina Choro	Drinking water, Irrigation	Robert	
22 April	Collana A (Playa Verde), Tupaltupa	Chickens	Tim, Pattie	Sandra
23 April	Qhotia (Alto Peñas), Khara Khota	Camelids, Pisciculture	Robert, Pat, Graham, Tim	Rubén
24 April	Villa Puchuni, Collpacanta	Drinking water	Robert, Graham, Pat, Tim, Pattie	Rubén, Sandra
25 April	FQBL Office	Workshop (Review five-year plan and evaluation of 2004-05 projects)	Robert, Graham, Pat, Tim, Pattie	Ercilia, Valeria, Alberto, Lourdes, Sandra, Rubén, Roxana, Ruddy, Gabriel Valdivia (Consultant)
27 April	Chuchulaya, Chiquiruni, Villa Concepción	Drinking water	Robert, Pat, Graham, Tim	Roxana
28 April	Sacasaca, Huancollo, Huayrapata (PRADERA)	Drinking water, Greenhouses, Chickens, Irrigation	Robert, Graham	Graciela Apaza (PRADERA)
28 April	Amacari	Medical Center, Drinking water	Pat, Tim	
29-30 April	Amacari	Medical Center	Pat	
30 April	Corpa, Hucuri Milluni, Hucuri Alto	Milk derivatives, Dairy cattle, Cattle fodder	Robert, Graham	Sandra
1 May	FQBL Office	Workshop (follow up to 25 April workshop)	Robert, Pat, Graham	Lourdes, Gabriel Valdivia (Consultant)
2-3 May	Chaguaya, Mocomoco, Canahuaya (CEPRODIM)	Chickens	Robert	Sandra, Guzmán Loayza (Director, CEPRODIM)

## VII. People

### **FQBL**

#### **Board Members**

Ercilia Chipana	President (Clerk)
David Ramírez	Vice-president
Alberto Quelali	Secretary
Valeria Carita	Treasurer

Dora Quisbert

#### **Staff**

Lourdes Tantani	Coordinator of Projects
Sandra Laura de Javier	"Técnico" (Technician - Agronomist)
Rubén Ruiz	"Técnico" (Technician - Agronomist)
Samuel Patty	"Técnico" (Technician - Agronomist) (on leave of absence)
Roxana Alanoca	"Técnico" (Technician - Agronomist) (temporary)
Ruddy Ortuño	Administrator/Accountant

### **QBL-UK**

#### **Trustees**

Tim Thompson	Clerk
Brian Gallagher	Treasurer
Nico Evens	
Jane Benton	
Rob Phillips	
Liz Roman	
Tom Beale	

#### **Staff**

Pattie Richmond	Coordinator
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### **QBL-US**

#### **Board Members**

Tom Harvey	Clerk
Gretchen Woelfle	Secretary
Patricia Close	
Dawn Kennedy	
Graham Johnson	
Daniel Watson	
Lois Hackney	
Roger Conant	
Karen Lawrance (ex officio)	Treasurer

#### **Staff**

Robert Vincent	Coordinator
Ken Barratt	Publicity

#### **Consultant**

Gabriel Valdivia

**Centro de Promoción y Desarrollo Integral de la Mujer para Asociación de Mujeres Productoras (CEPRODIM)**

Guzmana Loayza                      Director

**Programa de Agro-ecológica y Desarrollo Auto Sostenido (PRADERA)**

Graciela Apaza                      “Técnico” (Technician - Agronomist)

**Amacari – Medical Center**

Susana                                  Auxiliary nurse

**Amacari -- Drinking Water**

Manuel Flores                      Committee President  
Ricardo Mancilla                  Previous Committee President  
Max Yujra                              Committee Finance Secretary

**Canahuaya – Chicken Houses**

María Apaza Mamani              Beneficiary

**Chaguaya – Chicken Houses**

Francisca y Marcela Canasto      Beneficiaries  
Roxana Waiva                        Beneficiary  
Catalina Paredes                    Beneficiary

**Choquecoa -- Drinking Water**

Victor Ticona                        Committee President

**Chiquiruni -- Drinking Water**

Candelaria Piza Claros            Beneficiary

**Chuchulaya -- Drinking Water**

Richard Adubiri                    Committee Recording Secretary  
Antonio Salas                        Syndicate General Secretary  
Luis Chigua                         Neighborhood Association President

**Collpacanta -- Drinking Water**

Florotino Quispe                    Community General Secretary  
Elogio Nina Quispe                  Work Committee President

**Colquencha -- Drinking Water and Greenhouses**

Alejandro Condori                  Municipal Mayor  
Eulogio Camacho                   “Mallku” (local indigenous leader)  
Antonia Ortiz                        Municipal Council Member  
Fermín Ajata                        Drinking Water Committee President  
Moisés Ajata                        Drinking Water Committee Vice-president  
Nonila Churqui                      Greenhouse Committee President

**Corpa -- Milk Derivatives**

Zacarías Quino Condori           Administrator and Committee member

**Huancollo y Cusnavi – Irrigation**

Manuel Coro Jarrandilla	Community General Secretary
Victor Quispe Arrandilla	Committee President
Manuel Coro Arrandilla	Committee Vice-president
Reynaldo Quispe	Committee Secretary

**Huayrapata – Irrigation**

Gualberto Colque	Committee President
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**Hucuri Milluni -- Dairy Cattle and Cattle Fodder**

Jonás Ajnota	Previous Dairy Cattle Committee President
Eleuterio Aquino Arteaga	Cattle Fodder Committee President

**Khara Khota – Pisciculture**

Hilarión Quispe Gutiérrez	Caracota Pisciculture Association President
Julián Ticona	Caracota Pisciculture Association Recording Secretary and Works Committee member
Santos Guerrero	Committee Recording Secretary

**Mocomoco – Chicken Houses**

María Mallqui	Committee President
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**Pajcha Peñas -- Greenhouses**

Juan Balboa Churata	Committee President
Elsa Aroni Churata	Committee Recording Secretary
Julián Quispe Balboa	Previous Committee President
Andrea Poma Apaza	Beneficiary
Nieves Churata	Beneficiary

**Pallcapampa – Investigation Projects**

Roberto Choque	Strawberry Committee President
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**Pampa Colani -- Fruit Tree Investigative Project**

Pablo Camargo	Committee President
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**Qhotia (Alto Peñas) – Camelids**

Bartolomé Vargas Quispe	Committee President
Apolinar Layme	Committee Recording Secretary
Luis Layme	Committee Press and Publicity Secretary

**Sacasaca -- Drinking Water, Greenhouses, and Chicken Houses**

Segundín Cruz	Drinking Water Committee President
Salustión Quispe	Drinking Water Beneficiary
Julio Cruz	Greenhouses Beneficiary

**Tuxajahuira -- Drinking Water and Forestry Investigation**

Felipe Choque	Committees President
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**Villa Puchuni -- Drinking Water**

Cirilio Machaca	Committee President and Community General Secretary
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Severina

Beneficiary

## **Notes on Visits to Projects**

### **Colquencha: Greenhouses (completed) and drinking water (completed), Graham, Robert, & Roxana, 17 April**

We traveled by bus. The greenhouses built around 2003 continue in operation and functioning well. There is a chicken project linked to the greenhouses. We visited several greenhouses and the women were achieving a high level of success with their produce which included tomatoes, celery, lettuce, chard, cucumber, pepper, strawberries, garlic, beets, cauliflower, carrots, and grapes (no fruit yet). There is some question as to the sustainability of the linked chicken project. Contributions to a maintenance fund continue to increase and loans are being made to community project members from the fund; however, there are no fixed periodic contributions to the fund. It is recognized that the maintenance fund will need to be made available to replace the roof of one greenhouse that is beginning to deteriorate. It is estimated that the cost of replacing the roof will be \$500. Since 2003, the women have received additional training on how to deal with excessive humidity, slugs, fungi, and insects in the greenhouses.

We walked to the town square where there was much celebration with several speeches, local music, and much dancing. Graham was asked to raise the Bolivian flag as the Bolivian national anthem was played. Municipal authorities and project committee members were present with the primary focus on the recently completed drinking water system. We were then taken in the mayor's vehicle to the water source and pump nearly five miles (seven kilometers) away and were fed a large meal with community members after a steep trek -- a little tough walking up a steep hill just having eaten a large meal at over 14,000 feet (4,300 meters). Robert and Graham had visited the community in 2006 when it had submitted a proposal for the water system. The proposal was later modified to include a diesel fueled pump purchased by the municipality. During the dry season (June-November) the pump runs four hours per day and in the rainy season it runs four hours per week. Although the system is running well there is some concern about the cost of operating the pump, especially during the dry season. When Graham asked the vice president of the drinking water committee about the diameter of the water pipe coming from the pump to the community, he was told that it was two inches but it would have been better if it had been four inches. (It was not possible to evaluate this comment to determine whether this was a legitimate concern or just a wish for something bigger than what was really needed.)

### **Pajcha Peñas: Greenhouses (completed), Pat, Graham, Robert, Tim, Pattie, Lourdes and Sandra, 20 April**

Pat, Graham, Robert, and Sandra were originally scheduled to visit Masaya and Tiquipa but upon arrival in El Alto, a strike by transport workers cancelled transportation to these communities. Upon return to La Paz, they joined Tim, Pattie, and Lourdes by taxi on a visit to Pajcha Peñas and Suriquiña.

We were warmly welcomed at Pajcha Peñas with an immediate meal provided and received presents of traditional hats (chulos). Community members feel they have received sufficient training on use of greenhouses; however, based on interaction with the community members, Tim inferred that there is either a lack of training or possibly incomplete training that did not allow for full understanding of

training content. The question of training was confirmed by the discrete strengths and weaknesses of each greenhouse owner. They change the soil every year and add cattle and donkey manure. Pat was particularly struck by the individuality of the adobe greenhouses with various combinations of vegetables and flowers. The greenhouses were generally in good repair and some were excellently managed. Tim observed that some greenhouses had only one or two crops, some were semi-wild, and others were more “managed” with well defined central paths and some obvious attempts at successional crop planting. Single flap windows and wooden doors provide ventilation and access. In addition to some of the crops grown in Colquencha they grow radishes, cabbage, turnips, chili peppers, parsley, lemon balm, and various herbs for flavor and medicinal purposes. They grow roses, geraniums, nasturtiums, and gladiolas. They use some of the plants for their seeds (e.g. lettuce and carrots). They can sell a dozen gladiolas for 18 to 20 bolivianos in La Paz. However, there is some question as to whether the sale of gladiolas provides sufficient income and several families were opting to not replant gladiolas and go for further vegetables. At the conclusion of our visit, Sandra made a point to the assembled community that though they were coming along well; they needed to work harder with their greenhouses. Sandra, upon questioning by Graham and Pat, said if you were to tell them that everything is great, they would slack off and not keep up the good work. Concern was expressed about making every effort to avoid certain pesticides on food material.

**San Calixto section of Suriquiña: Drinking water and greenhouses (completed), Pat, Graham, Robert, Tim, Pattie, Lourdes, and Sandra, 20 April**

Upon return from Pajcha Peñas by taxi, Tim, Pattie, and Lourdes visited, unannounced, several greenhouses, this included chicken houses. With the exception of one greenhouse, all of the greenhouses visited were being used and the owners were happy to show them off and share their thoughts with us. Tim felt that some of the greenhouses were better managed than others. Pat, Graham, Robert, and Sandra returned separately and also visited the one greenhouse that was not in use. The husband had died in an auto accident a few months back and the wife was left with four children (one a deaf mute). After a brief conversation, Sandra was able to fix the drip irrigation system and the woman indicated a desire to again use her greenhouse. According to three families the two drinking water projects in the community were functioning well. The widow had drinking water but from time to time she gets help in repairing water pipes that break. Each family has ceased to contribute two bolivianos per month to a maintenance fund because they feel they have saved enough.

**Sayhuapampa (Carabuco): Experimental grain improvement (in progress), Tim, Pattie, and Roxana, 21 April**

There was a formal meeting with a long question and answer session as to how tarwi could be used to supplement grain crops in bread, biscuits and gruel. Women were included in the discussion. These communities were close to Lake Titicaca, with good possibilities for agricultural diversification, more geographically fortunate than communities such as Pajcha Peñas and without the obvious poverty levels of the remote and poor communities in Calacoto. Crops included tarwi, quinoa, potatoes, wheat, oats, barley, broad beans, and field beans. The tarwi seed for this project was brought from Cochabamba and there was a planned move towards auto seed production and / or exchange with other projects. There were 70 individuals involved in the project and most seemed positive. Some had experience growing tarwi. There had been a delay in implementing the project. The weather conditions had been adverse and that the training had been too late to be applied to that year's growing

season. It was apparent that there had been variation in sowing times and in soil management between the plots; some parcels of land were broadly uniform in flowering and seeding as would be optimum, while other parcels were variable, with plants at varying stages of development leading to difficulties of efficient harvest and poor yields. Particular pest larvae were present and were presented to Roxana apparently for the first time. The particular pest (*ticono*) occurs just before harvest and therefore may not have been evident in previous monitoring visits. There was excellent communication between community members and Roxana and though there may have been a lack of consistent training or follow up, there appeared to be no insecurity on the part of the growers in reporting problems to Roxana.

#### **Tuxajahuira: Drinking water and forestry investigation (completed), Pat, Graham, and Robert, 21 April**

After taking a bus from La Paz to Sorata we took a taxi to Colani and then walked to Tuxajahuira. Our visit was clearly unannounced. The only person we encountered was the president of both the drinking water and forestry investigation project committees. We confirmed that the water system was still working. From across the river we could see the one hectare under cultivation for the investigative forestry project, but did not visit the trees. According to the project committee president, of the 4 kinds of trees being investigated, only one kind seems to be doing well. There was no mention of native tree varieties. The community had worked with past FQBL staff on these now completed projects but has not yet developed a working relationship with the current FQBL staff. There was an unconfirmed perception that past FQBL staff may have misled them on what materials were being purchased for projects. Experiments with peach and apple trees did not go well in part for lack of good soil.

#### **Pallcapampa: Latrines and drinking water (completed), Pat, Graham, Robert, 21 April then Pat, Graham, Robert, and Roxana, 22 April**

On the return from Tuxajahuira we walked through Pallcapampa unannounced. We returned with Roxana on 22 April. There are 17 families in Pallcapampa and the government is considering bringing in electricity; however, all families must participate and less than half the families feel they can afford to pay the monthly minimum bill of 20 bolivianos. The government has installed a solar panel at one house in the community as part of the national San Gabriel program to bring a long distance learning radio program one evening a week to the entire country with the goal of bringing literacy to all adults. The goal is to subsequently allow adults to attain a higher level of education.

The latrines at Pallcapampa include a ceramic toilet with bowl area, a shower, and a sink for clothes and hand washing – they seemed to be functioning well and being used. Each family contributes 20 bolivianos each year to a maintenance fund and if a family cannot afford this, they must put in 30 bolivianos worth of their own labor. This is QBL's only latrine project and 18 latrines have been installed. These latrines are more luxurious and costly than the "one hole in the ground" toilets installed in neighboring communities by other NGO's; this has brought some resentment from the neighboring communities.

#### **Choquecoa: Drinking water (completed), Robert, 22 April**

While Pat and Graham visited Pampa Colani and Pallcapampa, Robert visited this project. The project seems to be functioning well. The president mentioned that 43 families were involved with the project,



including the school with a public faucet. It appeared that some houses had two faucets. They have not started to contribute to the maintenance fund.

#### **Huarina Choro: Irrigation System (completed), Robert, 22 April**

Robert was able to meet with the president of the project committee and one other person involved with the project. The project was to benefit 35 families; however the president mentioned that there are several pieces missing from the system, such as pressure breakers, purge valves, and other minor pieces. Robert and the committee president visited the two water intakes that had been covered by a landslide two months earlier; one was completely covered and the other partially covered. The president assured that the intake that was completely covered would still be functional, but that they needed to clear away the landslide from the other intake before it could become functional. It appeared to be a little dangerous to work in the landslide area. They hoped to clear away the debris as soon as the dry season started. They had not been using the irrigation system since they were still in the rainy season and they hoped to start in the coming months.

#### **Pampa Colani: Fruit tree investigation (completed) Pat, Graham, and Roxana, 22 April**

We took a taxi from Sorata to Colani and walked to Pampa Colani. There are about three families participating in a fruit tree (apple, peach, and plum) project begun about three years ago. Ordinarily five years are needed for fruit production. One of the families provided with fruit trees no longer lives in the community and his trees do not look in tip-top shape. Another family's fruit trees looked well cared for. En route back to Pallcapampa we walked by the Irupata Colani water project (2007).

#### **Pallcapampa: Investigation projects (completed), Pat, Graham, and Roxana, 22 April**

We walked from Pampa Colani and spoke with the president of the strawberry investigation project. This project is not doing very well – during the rainy season the organic strawberry plant beds suffer from illnesses and the rats make it through the rather small thin plastic green house and bite the strawberries off the plants. The strawberries did not do well outside because after a rain the soil becomes very hard when it dries and the plants develop leaf spot and other problems. The solution would seem to be either to attack the rats or make more secure greenhouses. The person responsible for this project felt that he would benefit from additional manuals about pest and weed control.

The beekeeping investigation project is in place with about five hives; however, the person responsible for the hives has left the community, at least temporarily, due to family issues. They have been able to sell the honey and FQBL has assisted with finding a sales contact in La Paz.

When we walked back to Viacha for our taxi back to Sorata, we spoke briefly with a teacher interested in pursuing a project for his community located near Achacachi.

#### **Collana A, Playa Verde: Chicken houses (completed), Tim, Pattie, and Sandra, 22 April**

We travelled by taxi to the community. The whole of the Calacoto municipality is marginal and isolated. Most roads are seasonal with respect to access. There were basic crops on small patches of cultivated ground which at times appeared as almost desert conditions. Chicken houses appeared to be working well. Several participants questioned why they had had to have Lohmann breed chickens and there

were a number of reported cases of chickens dying from the cold. The mixture of breeds in the community will inevitably result in crossing which should be encouraged as it will generally be beneficial, adding a measure of genetically developed adaptation that may be lacking in the pure brown hens. The communities had free range black criolla hens and an interesting mixture of cockerel types.

We visited another very poor “hamlet” within the same community, less nucleated than the central “village”. It is difficult to envisage movement on the roads during the rainy season, which must add to the isolation. The chicken houses inspected were in good condition with enthusiastic owners and were in production.

#### **Tupaltupa: Chicken houses (approved but not yet started), Tim, Pattie, and Sandra, 22 April**

We travelled on from Playa Verde to this recently approved project, both in the municipality of Calacoto. We were welcomed to the school where another NGO has installed a solar electricity system. There was discussion of the possibility of a green house and chickens for the school. While this could be a useful teaching media, the community would need to address the problems of management during weekends and school holidays when teachers usually return to their homes.

#### **Qhotia (Alto Peñas): Camelids (completed), Pat, Graham, Robert, Tim, and Rubén, 23 April**

We took a taxi to Qhotia. The community had been notified of our visit and several project participants brought their llama herds to a central meeting area. This was an isolated and poor community of mainly stone buildings with thatched roofs at an altitude of 14,100 feet (4,300 meters). We were well fed here. Improved llama breeds (they are larger and provide more meat and better wool fiber) were brought in from the Oruro area with funding provided by QBL and the municipality. They hope to improve the gene pool. Of the 99 brought in, two died in transport. The level of livestock management knowledge was demonstrably positive. The llamas appeared to be in good health and have been given antibiotic and diarrhea shots and provided baths against external parasites. The community benefits from an existing llama producers association of 271 members, which serves in a sense as the project committee. There are already two offspring from the new improved llamas. The community carefully segregates the new llamas from the pre-existing stock. Each llama is tagged with a unique ear tag and a registry of detailed vital information is maintained (e.g. vaccination date, male by which female is impregnated). There are 12,000 to 15,000 llamas in the adjoining six communities. There is a concern that the current market for llama wool is not very good. At the closest market the low price does not cover the cost of transport. They would like to explore the market for llama jerky (dried meat). The community indicated that there is need for further training.

#### **Khara Khota: Trout pisciculture (in progress), Pat, Graham, Robert, Tim, and Rubén, 23 April**

We continued on to Khara Khota by taxi climbing to 14,600 feet (4,450 meters) and snow capped mountains less than ten miles away. This community and surrounding communities have developed expertise in pisciculture over the past 22 years since the dam was built to create a lake. Hilarión Quispe Gutiérrez, the president of the local pisciculture association, explained how the expanded facilities would enable the output to increase by enabling greater protection to the fry and therefore increasing the survival rate and thence the fish stock. The community is currently constructing a trout fish hatchery with separate pools for eggs and then fry of different sizes. They will place the fry with adult fish in the adjoining snow-fed man-made lake (400 meters deep) once they reach 70 to 150

grams (2 ½ to 5 ounces). Downstream, this lake is also used for irrigation. They hope to expand to other nearby lagoons at over 14,000 feet (4,250 meters). There is concern for the small fry weighing about 1 ½ ounces (40 to 50 grams) and they are pursuing floating cages for these fry. The Japanese provided the trout from near Tiquina. Robert and Pat had the opportunity to go out in rowboat and bring in a net full of 13 trout. Tim had the opportunity to cast for trout. Rubén, together with the community, is exploring cages for the young trout to protect them from predators such as other trout, pelicans, and foxes. Another issue, per Robert, is that another family is beginning work on another trout farm with the same system of releasing the trout into the lake.

**Villa Puchuni: Drinking water (completed), Pat, Graham, Robert, Tim, Pattie, Rubén, and Sandra, 24 April**

We took a bus to Patacamaya and then on to Villa Puchuni by taxi and had to get out of the taxi several times so it would not scrape bottom with so many people in the taxi. There was no public transportation available that would have gotten us even within ten miles (16 kilometers) of the community. Our visit had not been announced which provided for a greater sense of spontaneity from community members. The poverty level in this much dispersed community appeared to be significantly greater than other communities visited. The project had been completed five months earlier and was operational. A small group of families had a problem receiving water– the families did not have adequate water pressure. One of the problems was that they did not dig deep enough to install their pipes. Further, there have been a number of problems that are indicative of animosity between community members. It took much effort once into the project to get some community members to allow water pipes to cross their property. During our visit, one woman complained that she had been cut off from water and no rational explanation was forthcoming. The local government had to institute actions against community members trying to cut off each other's water. There were arguments regarding the use of tools purchased for the maintenance of the project. Originally there were 34 families but three of the families did not want to work. Water had to be brought in from 12 springs with four hand pumps to provide water to 31 families. We were told that this project was pushed by the municipality without the full support of the community. There was to be a community meeting on May 10 to address community issues and Rubén planned to attend; hopefully this meeting allowed for consensus to be reached on the resolution of the various problems.

**Collpacanta: Drinking water (completed), Pat, Graham, Robert, Tim, Pattie, Rubén, and Sandra, 24 April**

We continued on by taxi from Villa Puchuni. We were welcomed with much fanfare, including live music and dancing by all even though we were four to five hours later than expected. The school seemed to be the center of the community where there were latrines (using ash) and more efficient outdoors stoves recently provided by GTZ, the German government aid agency. The stoves are being used to cook breakfast for the school children with funding from the government. The school recently established a vegetable garden on its grounds. The festivities next to the school were followed by a very late lunch at the home of the project committee president. This project was quite a contrast to the Villa Puchuni water project; there seemed to be fully community support for the project and they worked "day and night" to complete the project. The community expressed interest in a follow up in a greenhouse and chicken project. The project has benefited from unused gasoline pumps provided by

the municipality five years ago for irrigation. The pumps are used for only 40 minutes a day to assist in a true siphon system. All community families are making contributions to the maintenance fund.

**Chuchulaya: Drinking water (completed), Pat, Graham, Robert, Tim, and Roxana, 27 April**

Chuchulaya is a community with very limited vehicular transportation from La Paz for 6 months of the year. In part because the altitude of the community is several thousand feet lower than the Altiplano, there is a wider range of crops available and a milder climate. We took a taxi to the community and had to get out of the taxi several times so it would not scrape bottom badly. We were welcomed with a few speeches and a meal in the town hall. We toured the community and visited several water tanks and homes. There are 70 families that are beneficiaries of this fresh drinking water project. This system supplements the existing system which has a saline well as its source. Fresh water is flowing through the faucets in the recently completed project; we tested quite a number of the faucets. Of these 70 families, 48 are permanent residences of the community and 22 families reside in La Paz. The families living in La Paz have had to make a greater financial contribution for their faucets and 40% of these families do not have faucets yet. All permanent residents of the community have two faucets – one for fresh water and the other for salty water used for other than drinking. They are more likely to turn to the salty water faucet during the dry season due to the limited supply of fresh water. We noted that some families do not have a basin at the foot of the faucets. A community member indicated that this was because the funds for sand to mix with the cement had not yet come from FQBL – an assertion later disputed by Lourdes. It was agreed that it would be important for the community to meet with Samuel Patty, the FQBL "técnico," who is on leave of absence for a few months. The community would like to increase the size of the fresh water tank so as to store more fresh water during the dry season. The community indicated an interest in obtaining greenhouses even though the community does not experience freezing temperatures.

**Chiquiruni: Drinking water (completed), Pat, Graham, Robert, Tim, and Roxana, 27 April**

We continued on by taxi from Chuchulaya and the community appeared somewhat deserted. We were not expected and spoke briefly with one woman in the community. There are eight families connected to the drinking water system. We noted that at least one of the faucets was in a locked box to prevent unauthorized access to the water system. There are some other families that have the pipes coming to their property and have faucets but do not have water yet because they have not built their houses yet. The water system appears to be functioning properly. There are families in the upper part of the community that would like to be connected to the water system; however, given the available water sources there is some question as to whether sufficient pressure can be created.

**Villa Concepción: Drinking water (completed), Pat, Graham, Robert, Tim, and Roxana, 27 April**

We continued on by taxi to Villa Concepción. We were not expected and very briefly visited the potable water system. We turned on a faucet or two and the water flowed well.

Earlier in the day we had been told that the shorter route back through Cumbaya was impassable. We later learned that a team of doctors had made it through on this route. So the five of us plus the experienced driver embarked on a return on this shorter route. We had to get out of the two-wheel drive vehicle several times so that the vehicle would not scrape bottom badly. We soon found out that

the team of doctors had made it through in a four-wheel drive vehicle. Around 5 pm we found ourselves stuck in the mud on a portion of the narrow road going up a hill. We all got out and tried to improve the traction of the vehicle and prevent the vehicle from going deeper into the mud. We started wondering what we do if we could not get out of the mud – it would be getting dark in about 1 ½ hours, it would be highly unlikely that another vehicle would come by, and it would be a three to four hour walk across the Rio Vargas (no bridge) to Sorata. Fortunately we finally made it out of the mud after an hour and made it back the way we had come, arriving in La Paz at 11:30 pm. This incident prompted us to question what would have been done if the driver had been one of the FQBL "técnicos."

**Sacasaca: Drinking water, greenhouses, chickens (completed), Graham, Robert, and Graciela Apaza (PRADERA), 28 April**

We travelled in a vehicle owned by PRADERA who manage the project with QBL funding. At Sacasaca the greenhouse project had been completed in September 2006 and the drinking water project in January 2008. They need irrigation water for their crops. They connect the drinking water faucet with a hose for greenhouse irrigation. In recent years, prior to the implementation of the water project, two children had died of diarrhea. Per Graciela they have sound data regarding the reduction in diarrhea and there has not been another death since the implementation of the drinking water system. Fortunately there is medical attention available nearby in Sapahaqui. There are about 45 resident families and two or three families living in La Paz who have helped with the water project. Each family has been contributing one boliviano per month to a maintenance fund since February 2008. The distance between the water source and the water tank is about 2 ½ km (1 ½ miles). All water pipes are buried 40 to 60 cm (14 to 21 inches) except when crossing a ravine. We visited the water tank and at least five homes and found the water system to be in good order. They do not use chlorine in the water but clean the tank every three to four weeks. We encouraged them to analyze the water periodically, at a cost of 160 to 180 bolivianos, to check microbial content.

Originally 28 families had indicated an interest in green houses but only 19 families followed through. Some of the families backing out felt that having greenhouses would result in payment of higher taxes. Of the 19 greenhouses, there are eight that are no longer being used as chicken houses because they are not immediately adjacent to the family's home – they have had problems with chickens being killed by hawks. Following are some of the crops growing in the greenhouses: tomatoes, chili peppers, soy beans, spinach, peas, parsley, chard, cucumbers, and quinoa. Quinoa is grown in a greenhouse solely to protect the crop from birds. Families can sometimes earn 25 bolivianos per month from the sale of excess produce in the market. One family has started to grow grapes in their greenhouse.

We were warmly welcomed by the community with a meal prepared in large part by the project committee president. They expressed an interest in pursuing a cattle project with QBL and PRADERA. We were again served a large meal upon arriving in Huancollo less than an hour later – we were polite and ate the second meal even though we were stuffed.

**Huancollo and Huayrapata, Irrigation (in progress), Graham, Robert, and Graciela Apaza (PRADERA), 28 April**

We continued from Sacasaca to Huancollo in the PRADERA vehicle. We were welcomed with flower petals thrust upon us. The irrigation system will serve Huancollo (39 families) and Huayrapata (14

families). Huayrapata was formerly a part of the Huancollo community. There are about 160 families in the five or six communities in this general area. The main crops are peaches, apples, and plums. They expect to complete this project in June or July of this year. The large irrigation tank built 25 years ago will be shored up. They will be using pipe, rather than an open canal, from the water source to the tank. Because of concern about landslides on one side of the river, they decided to change the design to bring the water pipe from the source down the other side for over 100 meters (325 feet) and then bringing the pipe across to the tank via a hanging bridge – this will add about \$860 to the cost of the project. If there is no funding available, they will reduce the piping for their final sections of the irrigation system. Graciela advised them that they have to bury the pipe at least 70 cm (28 inches). Representatives from the nearby Cusnavi community spoke to us about their need for funding a project that would bring the water from the tank across the river in 120 meters (390 feet) of pipe – currently the water comes across in a dug out canal where much is lost to evaporation and ground absorption. The Cusnavi community would then take the water another 1,500 meters (5,000 feet) to their community.

#### **Amacari, Drinking water (completed), Pat and Tim, 28 April**

We traveled by bus to San Pablo de Tiquina and then across the straits of Tiquina by boat. We were picked up at San Pedro de Tiquina and driven to Amacari. We were taken on a tour of the drinking water system and everyone told us it was working well. Although part of the system was not fully functioning, awaiting a spare part for necessary repairs, all of the houses were receiving water. We turned a few faucets and water flowed freely. In a few months of the dry season there are a few families that live up from the water supply that may not receive an adequate water supply. Each family pays 1 ½ bolivianos per month to the water system maintenance fund.

#### **Amacari, Medical Center (completed), Pat, 28 to 30 April, and Tim, 28 April**

The Amacari Medical Center has effectively been transferred to the management of the local department of health, SEDES (Servicio Departamental de Salud). The final documents have yet to be signed. Already there appear to be improvements in the management of the Medical Center and it is currently fully staffed. SEDES has provided a fulltime medical intern, a fulltime nursing intern, a part-time (one day a week) dental intern, a maintenance man and full time nurse auxiliary (Susana, who has been there since the inception of the Medical Center). The internship positions for rural training are for three months and rotate.

In addition, there are currently two Cuban doctors working at the Center. After the Medical Center was abandoned by INELA (Iglesia Nacional Evangélica Los Amigos) the Cuban doctors were contracted directly by the “Comité Cívico de Amacari.” Due to recent changes in the law, local authorities have greater autonomy and are free to contract independently of the central government authority.

Pat (a physician) met with Dr. Gustavo Pereyra, the “Responsable de Salud” (the local SEDES authority in Tiquina). He has overseen the SEDES local health services for the past three years. Pat had also met with him during her 2007 visit to the Center. He appears to be organized, responsible, and interested in improving medical care at the Center. He has volunteered to email quarterly reports on the status of the Medical Center to Pat starting in July 2009. Dr. Pereyra and Pat reviewed the equipment, medical supplies, maintenance and future direction of the Center. SEDES has provided the Center with a new large motorcycle for transporting sick patients and making medical visits to the

communities. SEDES has also provided a new computer. Patient data is carefully tracked, organized and recorded. The information is presented monthly at the local SEDES meeting. SEDES has provided forms for recording each patient's medical encounter. These forms were lacking during an earlier visit, at which time the only record of a medical encounter was the visit ledger which recorded only the patient's diagnosis, medication, and fee. SEDES has also provided sheets and blankets for patient beds. These were also lacking at an earlier visit.

It is difficult to tell if any equipment has been removed from the Center. INELA cut off the doorknobs of the interior rooms when they left so that no one could enter the rooms to remove things. Other than the old computer, nothing major appears to have been removed. There is some question as to whether the old computer belonged to INELA or the Medical Center.

Unfortunately, at this time the Center is lacking medications. There are few of the medications previously supplied by SEDES. Dr. Pereyra assures that this is temporary due to the transition of the Center from INELA to SEDES. The Cuban doctors receive a limited monthly shipment of medications from Cuba which are provided to the patients free of charge.

Dr. Pereyra and Pat discussed the staffing of the Center going forward. The Cuban doctors will have to leave. They are outside the jurisdiction of and have no accountability to SEDES. This situation makes it impossible to assure that patients are receiving appropriate care or to track health care indicators.

Pat is optimistic about turning over the management of the Center to SEDES. Some patients have drifted away from the Center. Once they are reassured of the consistency and continuity of patient care at the Center, there will be a broader and more consistent patient base. Dr. Pereyra assures that SEDES is committed to making the Center a fully functional clinic. Other area SEDES clinics are buildings that were converted to medical centers, therefore not as nice as the Amacari Medical Center. He believes that the Center will regain its patient base, attract additional patients from Ojay (a neighboring town), and thrive as the nicest clinic in the area.

#### Clubs de Madres (Mothers' Club)

Susana, the nurse auxiliary at the Center, has been in charge of the Club de Madres (Mothers' Club) Fund. Presently only one of the three Club de Madres is using the \$200 Fund. She has had little time to manage the clubs but believes that she will now have more time to spend. One club has dissolved and another has done nothing with the money. The Chicharo Club has used its money to make gelatins that they sell. Their initial plan was to bake and sell bread but found that they had insufficient funds to cover the cost of baking supplies and they did not have enough space to store supplies. The gelatins have worked well for them. They would like to expand into making wool items but have insufficient funds to cover the start up costs for materials.

Pat spoke with Susana regarding accountability for the money given to the Clubs. Pat wrote an official letter to each of the three clubs reiterating that if they are not using the money for a project, they should return it to the Club de Madres Fund, consistent with the original intent of the Fund.

**Corpa, Milk derivatives and dairy cattle (completed), Graham, Robert, and Sandra, 30 April**

We took a bus to Corpa and walked directly to the milk derivatives processing facility. This is one of two cheese processing facilities in Corpa. Five families are involved with the making of cheese and other dairy products. There is an agreement between Corpa and Hucuri Milluni to provide milk to this processing facility, currently at 2.1 bolivianos per liter, with 15 of the 30 families in Corpa and 15 families in Hucuri Milluni. On average, 600 liters of milk are processed daily but this drops to 400 liters in the dry season at which time the price of cheese goes up. Once a week, the cheese is taken to La Paz where typically 250 medium size cheese packages are each sold for 9 bolivianos. They have someone in La Paz make the “Quinvarco Corpa” labels for their dairy products. They have the necessary sanitation registration. When we visited Corpa three years ago, the community wanted to obtain a labeling machine that would have cost over \$10,000. They heated the milk to 140 degrees Fahrenheit (60 degrees centigrade) for making the cheese. The five families have been able to borrow \$5,200 at a low interest rate from individuals to purchase a small used truck for transporting milk and milk products. They would like to obtain a computer to carry out some of the administrative functions of the facility.

#### **Hucuri Milluni, Dairy cattle (completed), Graham, Robert, and Sandra, 30 April**

We continued on to Hucuri Milluni by bus. With the dairy cattle project, each family with a cow must agree to give any calves to someone else in the community that does not yet have a cow. We were told that there may be a few families reluctant to give up their calves. As was indicated in 2006, the community is desirous of obtaining stables for their cows, especially the calves. A cow's milk production decreases in cold weather and production goes up if the cow is in a stable, even with a “criollo” (native) cow. They say it can get down to -20 degrees centigrade (-4 degrees Fahrenheit) at night. They believe it would be beneficial to have a stable or room for milking the cows. We discussed artificial insemination and the possible problems of limiting the gene pool if only one bull were used.

#### **Hucuri Alto, Cattle fodder (completed), Graham, Robert, and Sandra, 30 April**

We walked toward the Hucuri Alto community and encountered the project committee president working on a community project well before reaching the community. About 15 families in the community have received alfalfa seed from QBL. The project committee president told us that the community is very pleased with the fodder project and was pleasantly surprised with the results. Community members had been skeptical about using the fodder for silage to feed the cattle and felt that they were just wasting their crops. The few that did use the fodder to make silage in the first year had such good results that the rest of the community was eager to try it out during the second year. The community is learning how to make fertilizer from cattle dung. One community member mentioned that they would like to have sprinkler irrigation for each family's field.

#### **Chaguaya, Chickens (completed), Robert, Sandra, and Guzman Loayza (CEPRODIM) 2 to 3 May**

Robert and Sandra left by bus at 5:00 am and arrived in Mocomoco at 11:30 am and then walked to Chaguaya (30 minutes). We were warmly received, although they said that they had been waiting for us several days earlier. Due to transportation problems we had been unable to arrive earlier as planned. The project participants did not seem as organized as other project communities that Robert had visited. Most families still had some chickens, but the families appeared discouraged. Five chickens died during transport and, since starting the project, chickens were lost by other families due



to illness. The families currently had 13 to 18 chickens. One of the project beneficiaries did not have any chickens because she recently gave birth and sold her chickens to cover her medical expenses. All of the families were concerned about the high cost of chicken feed.

**Mocomoco, Chickens (completed), Robert, Sandra, and Guzman Loayza (CEPRODIM) 2 to 3 May**

We returned to Mocomoco and visited the grain mill with five of the project participants. They charge 10 bolivianos per approximately 14 kilograms (31 pounds) for milling grains from farmers in the area. The mill is intended to help the families reduce the cost of feed as it is not economically feasible to sell chicken eggs if feed is purchased in and transported from La Paz.

The community was having a festival and so most of the project participants were involved with the festival. The mill has only worked for about seven months and was being repaired in El Alto. This was the third time that the motor had failed. They mentioned that they had originally planned to purchase a mill in El Alto that would have come with a one-year warranty, but the FQBL "técnico" (no longer with FQBL) suggested that they purchase a less expensive mill in Cochabamba. After taking the mill in for its first repair, the repairman said that it looked like the motor was a used motor. The current repair costs about 1,300 bolivianos and a new motor would cost around \$1,500. There is some doubt as to the reasons for the problems. The electrical current is not very stable in the area and perhaps they need a current stabilizer and/or surge protector.

The group in Mocomoco has decided to move their chickens to their homes in the countryside and away from the urban center.

We spent the night at the CEPRODIM office in Mocomoco.

**Canahuaya, Chickens (financed), Robert, Sandra, and Guzman Loayza (CEPRODIM) 2 to 3 May**

The next day we walked from Mocomoco arriving an hour later in Canahuaya at 6:00 am. We met with five project participants. The others had left for a fair in another community. There was some confusion about the number of participants in the projects and so we met with them to define how many people would participate in the project. We also talked about the need to measure the malnutrition rates in the community before the project started. Guzman promised to get this information from the local health promoters. Sandra also took this opportunity to provide the community with their approval letter and explain how FQBL will work with CEPRODIM on the project. We returned to La Paz taking the 9:00 am bus.

On the bus ride back to La Paz, Robert spoke with a member of an association of former Mocomoco residents that is interested in implementing projects to improve the nutrition and income of the area inhabitants. They are looking to implement a larger chicken project in one of the large communities in the area. They are taking this on as a private income-generating initiative, but it seems like there are possibilities of integrating CEPRODIM's work with this private initiative. We provided the man with FQBL contact information.