



Report on the Anapati Pangoa Mission Project

December 2019

Introduction

Since the last report on the farm project in October 2017, the condition of the farm has continued to improve. Jorge Ayala continues to manage the farm for us, and we continue to use the services of an agricultural engineer, Elmer Quispe Salcedo, to consult with us on the farm project. The long-term farm workers, who are responsible for the regular maintenance and caretaking of the farm, have been stable and performing their duties adequately. There have been a few changes in personnel due to family issues, but these changes did not interfere with the routine work of the farm.

The physical plant has been improved slightly, as well. Additional electrification has been accomplished through the use of solar energy. We now have better more constant communication with the farm. The cacao dryer project has been advanced significantly, as well. A clean water system was designed and has been installed. The road and transportation situation has improved, and work continues on the road improvements.

The ministry initiatives continue to grow under the direction of Jorge Ayala. New leaders have been trained among the Asháninka, and more people are involved. A school that was started in collaboration with the community of Pachacutec continues to grow and is now subsidized by the Peruvian government. A discipleship group has been started in Pachacutec and is led by Jorge Ayala. The work with the Asháninka continues and is mostly under Asháninka leadership now.

Cocoa (Cacao)

The farm team has changed somewhat since the last report. Lucio Pérez, Sr. and his wife Judith have returned to their home in northern Peru. His son Jorge and his wife, Jennifer left the team, as well. The current farm team consists of Lucio Pérez, Jr, his wife, Marita Rodriguez, and their two girls, Marcela and Luciana. Marcos Pérez continues to be a part of the team, and Edgar Rodriguez, Marita's brother, has joined the team. Jorge Ayala continues to manage the project, and we continue to use the services of an agricultural engineer, Elmer Quispe Salcedo, to consult with us on the farm project.

The control of undergrowth is becoming less intensive as the cocoa plants mature. It is now controlled using only mechanical equipment without the use of herbicides.

The trees are being fertilized and treated against disease on a regular basis. Pruning and removal of unproductive parts of the trees is now routine. All of the existing trees are now

controlled by the grafted portions, and the common cacao trunks have been removed. The predominant plant is now the grafted species of CNN51.

The engineer, Elmer Quispe, projected the harvest to be approximately 400 kilograms per hectare for the harvest period of July through August 2018. The actual harvest for this time period was 336 kilograms per hectare. The harvest from September through December 2018 produced an additional 106 kilograms per hectare. Total production for 2018 was 3535.2 kilograms, which was sold for S/.21439.00. Production for 2019 was 3631.8 kilograms, which sold for S/.27382.74. This production is expected to increase during 2020. Except for two months out of the year, a harvest is expected to occur approximately twice a month starting at the end of January 2020. This production was from eight hectares.

A Peruvian company, Machu Picchu Foods, continues to purchase all of the cocoa that we have produced to date, and continues to be interested in purchasing all that we produce.

Note: As of the writing of this report, the cocoa trees have grown too large to be able to take panoramic views



Typical condition of cocoa trees around the farm house 2018.



Typical condition of the cocoa trees in 2018.



Typical condition of the cocoa trees in 2018.



Cocoa trees as of December 2019.



Pruning the cocoa trees.



Harvested cocoa pods awaiting processing.



Artisanal bag fermentation of cocoa beans in preparation for drying.



Cocoa beans in a dryer.



Sacks of cocoa being weighed for sale.

Coffee Project

There are now ten hectares of coffee planted. The coffee produced a small initial harvest in 2019 and is expected to have its first significant harvest starting around April 2020. The plants are being cared for and have been fertilized and treated to protect them from disease.

This project currently employs two full time workers, Pedro Mantari and his wife, Marleny Mantari. Their children, Mariana and Alexis, also live with them on the farm. They are responsible for maintaining control of the undergrowth, fertilizing the plants, and fumigating against vermin. Additional temporary personnel will be employed for the harvest.

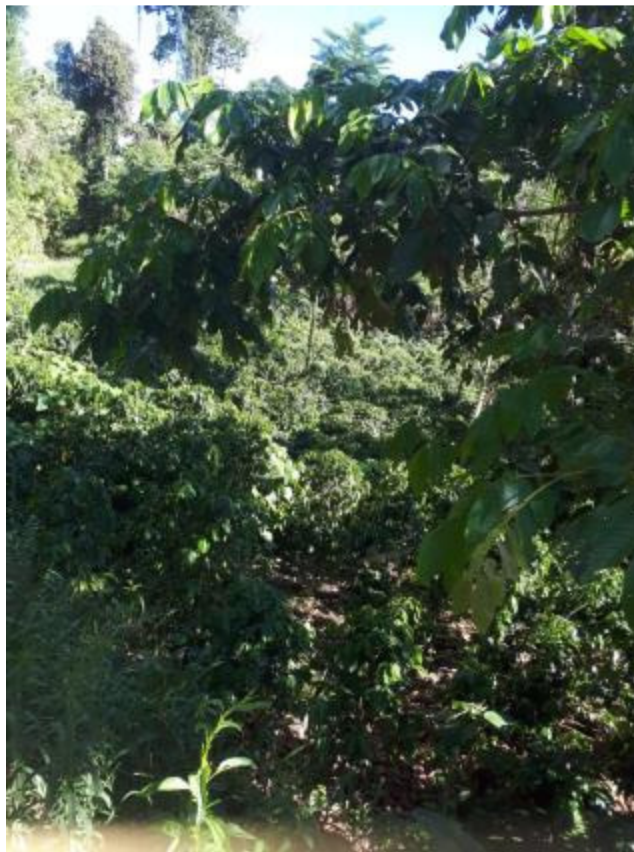


Pedro Mantari

The Hudson - Lermo Beverage Group based in Kirkwood, Missouri is currently interested in purchasing all of the coffee we grow. They have evaluated samples from the small harvest in 2019, and the initial indications are that the coffee will be good. This connection came about through a longtime friend of Arthur's, Leonard Scarboro. We have been working on setting up the necessary paperwork process for the exportation. A representative of the beverage company is planning a visit to the farm to finalize details on the exportation during the harvest time in 2020.



Leonard Scarboro



Coffee plants



Coffee plants



Cherries on coffee plant.



Cherries on coffee plant.



Cherries on coffee plant.

In preparation for the 2020 harvest, we have prepared a machine to peel the fresh coffee cherries and basins to separate bad beans from good beans and ferment the coffee. We built a modification for the dryers so that they could be used to dry coffee, also. We are working on obtaining a machine to wash and separate the coffee based on size and a machine to peel the parchment off of the dry coffee and prepare it for export.



Ivan and Carlos helping with fabrication of the coffee peeler base.



Coffee peeler on the farm.



Jorge with basins for washing and fermenting the coffee.

Solar Dryers

The first four production dryers installed in July 2017 functioned very well. In early 2018 fabrication of four additional dryers was begun, and the additional dryers were installed on the farm in April 2018. A modification was made to allow the dryers to function for coffee, as well. The modification consisted of a removable drawer bottom net that had much smaller openings than the net used for the cocoa. Based on comments from our cocoa buyer the dryers are producing an excellent product, which has resulted in receiving a premium price for our cocoa. The initial results from our coffee client indicate that the dryers are more than adequate for the coffee as well. A moisture meter to monitor the drying process more closely was purchased for use on the farm.



Layout for installation of additional dryers.



Completed dryer installation.



Eight dryers installed.

Electricity and Water

Based on the subsurface investigation performed in August of 2017, a system to collect ground water from a seep uphill from the farm house was designed. The system construction was initiated in September 2018 and was finalized in September of 2019 with the help of a team from Halltown, Missouri. In addition to the collection system, a sink for cooking, cleaning, and clothes washing was installed in the kitchen. The sink was equipped with a filter to provide potable water for drinking. A grey water drainage system was installed to carry effluent away from the building area and discharge it in an appropriate location. Auxiliary water storage tanks were installed to provide for water for crop processing and low water production from the seep in dry weather.



Excavation for collector tank and outlet piping.



Installation of tank, cutoff membrane, and one of the collector lines.



Finished collector system.



Kitchen sink.



Kitchen sink with water filters and drain line.



Drain piping installation.



Drain piping installation.



Auxiliary water tanks.

We were also able to add two additional solar panels to provide for nighttime lighting, charging of phones, and to power an internet satellite system. The internet system now provides almost continuous communication with the farm. It also eliminated the need to travel four hours back to San Martin de Pangoa to have fair communication. The elimination of the travel costs more than paid for the internet service. We still lack sufficient power to provide for refrigeration for the kitchen.

Thanks to a donor, we were able to purchase a generator for the farm with sufficient capacity to run the peeler and other future machines.



Jorge with the generator.

Stream Bank Erosion Protection

Significant erosion was occurring on the stream bank next to the farm house area. It had increased in 2018 due to an unusually intense rainy season. It was decided to construct an erosion control barrier along the stream bank to protect it from further erosion. The construction was started in September 2018. The construction consists of a filter fabric laid over the stream embankment. The fabric is held in place by the placement of sand bags filled with a mixture of sand and cement. The wall was initially constructed to approximately two feet above the stream bottom with plans to continue to increase the height, as time and resources permit.



Preparing sand cement mixture across the stream from the area of stream bank erosion.



Erosion protection construction along stream bank.



Erosion protection construction along stream bank.

Road

The road conditions continue to improve. Travel time from San Martin de Pangoa to the farm in dry weather is now only 3.5 hours. This is a reduction of approximately 2 hours in travel time. The stabilization of the road surface has reached Puerto Anapati, some 25 kilometers past the farm, where we have a local mission base. The stabilization has been good enough to withstand two severe rainy seasons with only minor landslides that have been cleared rapidly. Only one major stream crossing between San Martin and the farm lacks a bridge now.

Approximately one third of the road from San Martin de Pangoa has now been paved and is in excellent condition. Work to improve the road and pave it is currently being performed. When this section is finished the road will be paved to within 12 kilometers of the farm.

The road currently connects San Martin de Pangoa to Puerto Anapati and continues on to the Rio Ene where a ferry has been installed to carry vehicles to the other side of the river. The road then continues past Yoyato and goes on to Pichari in the Cusco region. This road is programmed to be a part of the transcontinental road that will cross Brazil and end at the Atlantic Ocean.

In partnership with the community, a track was cut from the main road to the area north of the farm. This gives the community members north of the farm access to the road and also provides us with vehicle access to the northern part of the farm. Prior to the construction of the track, the only access was by foot walking up the stream that goes through the farm.



Track to north part of farm.



Track to north part of farm.

Ministry

The Lord Jesus has been blessing the ministry in this region. Our team of national missionaries stationed in Puerto Anapati has been reduced as the Asháninka leaders have begun to take over the responsibility for the ministry work. David Cairuna and his wife, Mercy Bardales, and their daughter, Gabriela, are the only national missionaries that we have stationed in Puerto Anapati, now. Jorge continues to provide oversight and care for David and Bernabé and their families.

Bernabé Kashantio and his wife, Olga Rios, were our family of peace when we first started the ministry among the Asháninka, and they are now the principle leaders and workers in the ministry. Their family also participates with them in the work. David and Mercy now work under Bernabé's leadership, assisting him in the ministry. Bernabé now does all of the discipling and leadership training, which is done in Asháninka instead of translated from Spanish to Asháninka. He now has a number of Asháninka leaders, Carmen, Walter, Gilberto, and others working with him. Bernabé and these leaders did all the work to set up the medical mission that we had in the Asháninka community of Yoyato in June of 2019.



Bernabé and his wife, Olga.



Bernabé and his family.

Jorge Ayala, our farm manger and discipleship coordinator for the jungle region, currently has a discipleship group in the community of Pachacutec where the farm is located.



Some of the discipleship group in Pachacutec.

David Vargas, who was our local coordinator for the ministry team in Puerto Anapati, married a young lady from the Ukraine, Julia, in March of 2018. David and Julia worked in the jungle for approximately a year after their marriage. In March of 2019, they decided to move to the Ukraine, where they are continuing to disciple Spanish speaking people in the Ukraine. They now have a precious daughter, Franchezka.



David and Julia.

In addition to the ministry work of the team, we participated in the establishment of a school in Pachacutec where the farm is. The school now has six grades and adds additional grades each year. The children of our farm workers, as well as other children from the community attend this school. The Peruvian government has now taken over the financial responsibility for providing teachers.



School building in Pachacutec.



Children attending school in Pachacutec.

Summary

With respect to the cocoa production, we are expecting that the production will cover all of the costs associated with this crop in 2020, with the exception of additional capital improvements. There are still two hectares that are not yet mature enough to produce. These two hectares should provide the additional earnings necessary to economically help sustain the ministry in Peru. The coffee project provided a small harvest in 2019, and it is expected to produce a full harvest in 2020. We are trusting the Lord Jesus to give us an abundant harvest of both crops so that the Peruvian ministry can become financially independent.

We hope to make additional capital improvements during 2020 and 2021. These improvements could include a bathroom facility and septic system in place of a latrine, a permanent fermenter for the cocoa, four more dryers for the cocoa and coffee, a machine to peel, wash, and grade coffee, a machine to remove the parchment from the dried coffee, and a permanent farm house with warehouse space for the harvests. These improvements will depend on time and resources. Thanks to the Lord Jesus and a generous donor, we have the resources for the machine to peel, wash, and grade the coffee.

The ministry side of the work is growing well. We praise the Lord Jesus that the Asháninka are assuming the responsibility for the ministry among their people. As the local leaders take on more responsibility, the national missionaries will be moving to work in other places in Peru. We are planning additional leadership training for the local leaders in Anapati. At this time we are not planning any more medical missions to this area for the foreseeable future.

Thank you for your generous support of this project. We are grateful for your partnership in this Kingdom endeavor. We are excited about what the Lord Jesus will do through this project for the future expansion of His Kingdom, both in Peru and possibly abroad.

If you have questions, please don't hesitate to contact me. May God bless you

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Arthur C. Ivey". The signature is written in a light gray or blue ink.

Arthur C. Ivey
Missionary to Peru
TMS Global