

Project Picol

Project Picol aims to improve the infrastructure and economic profitability of Picol, Peru by constructing 22 Adobe Cuye Houses. Each 2.4 x 3.75-meter house will be supplied with interior structures and contain 20 cuyes which will create a livestock base used for consumption to directly benefit 120 community members. Cuyes are an indigenous Peruvian livestock classified under the rodent species, with an average size of 12 x 5-inches and are a traditional dish to the Peruvian diet. Early stages -- *May through August* -- will consist of building adobe floors and walls, creating interior construction, and distributing cuyes to each house. The latter stages will take place *after August* and focus on maintaining cuyes which will provide the community a direct resource to ameliorate the lack of essential nutrients, protein and vitamins, and create potential economic profitability.

Why Cuye Livestock and Adobe Houses

- Only 10% of the Picol community has a stable income, and most families rely on what the land can provide them as a source of nutrition; the daily average family income is 30 Soles (S/). \$1.00 = 3.22 S/. To help economically, Picol children sell handcrafts in the closest market -- located in Cusco, Peru, an hour-walk from Picol, Peru -- instead of going to school.
- In December 2015, **Nicolette Duong** was invited to meet with the community of Picol, Peru after helping the community in medical mission trips earlier in the year. She was informed of the poor living standards and lack of governmental support. After hearing the voices of the community speak from experience, collectively our team and the Picol community decided to help by creating infrastructure for livestock.
- In the course of preparing, we gathered 11 letters of support¹ which included quotes for cuye buying and selling, families participating, and materials showing the passion and efficiency of this community.

Adobe House Construction and Design

- Each 2.4 x 3.75-meter house will be constructed under **Colton Hail's** supervision. Funds will allow the ideal house to be topped with corrugated and translucent galvanized iron roofing windows, a wood door, and 8 wood pens with chicken wire. Room to construct second level pens is possible. One cuye pen will hold 9 females and 1 male. Each house can hold up to 80 cuyes; therefore, up to 60 more cuyes can be accommodated (without interior construction needed) for sequential breeding seasons.
- Cuyes continue to be a traditional dish to the Andean Region of South American. Each has over 70% usable meat, 21% protein content, and only 8% fat, making cuyes high in nutrition. Cuyes also mate once they reach three months for females or five months for males, both sexes remaining fertile for up to eight years. Cuye resell at 22 S/. (~\$7).
- Based on two families in Picol who have had success in creating adobe houses and Esmeralda's Cuyes Farm, cuyes simply require adequate space, water and locally grown wheatgrass.

Expected Outcomes and Measure of Success

- Maintaining a minimum of 20 cuyes per house
- Enabling over 50 children to transition from working in Cusco to focus on education
- Providing 22 Adobe Cuye Houses introduces economic and nutrient benefit for 22 of the 31 families
- Each house will donate 10 cuyes quarterly, 40 yearly, equivalent to 880 S/. (\$273) for community fund
- According to Esmeralda Cuye Farm and current cuye houses, 288 cuye can be sold, consumed, maintained or donated per year. The value of total cuyes per house amounts to 6,336 S/. (\$1,967)

Timeline

May	Meeting: 1	Construct Adobe Foundation	International Money Transfer
	Create Website	Grow Wheatgrass	Team arrives in Peru
June	Meeting: 2, 3	Wait for Adobe Foundation to Dry	Start Interior Construction
July	Meeting: 4	Complete Interior Construction	Obtain Cuyes
August	Meeting: 5, 6	Distribute Cuyes	Prepare Final Report

1: Letters are from **Dr. Nancy Chrystal-Green**, University of Florida Senior Director for Student Engagement; **Community of Picol Peru**, including a written agreement with 22 families, adobe-house construction materials, restaurant listing of cuye dishes; **Esmeralda Cuye Farm**, livestock vendor who will sell the project cuyes which meet health regulations at a price of 25 soles - each with a resale value of 22-60 soles in Cusco, Peru; and **Cesar Alvarado, Commercial and International Business**, licensed worker in product and logistics export, is arranging for the community to use a local processing company to export the cuye meat.

Implementation Stages

Building The community will use the land's natural resources to create clay -- adobe -- foundations, thus not requiring any of the project's funds. No training is needed as current families created and live in adobe-based houses. All 31 families participated in planning, but 22 families wanted to develop and maintain the project. Picol's board of directors has assured us families have been involved in past community projects, have access to Cusco, need work, and have shown willingness to commit to this project after August. Once the foundation is created for the houses, interior construction will begin.

Growing Growth of the wheatgrass and monthly meetings will initiate as soon as the project is approved. Meetings will be held by the Picol board and our team to focus on any concerns, allow collaboration, and to (1) confirm families' participation and assign tasks, (2) consult with cuyes house owners, (3) choose interior layout, (4) distribute funds from a fundraising website and donated cuyes, (5) introduce sales into the local economy, (6) teach financial literacy.

Selling and Sustainability Quarterly, each house will donate 10 cuyes to the community funds and maintain 20 cuyes for year-round for reproduction. Excess cuyes will be kept for the family to use for personal consumption or to sell. This creates a stable fund for the community to vote on more adobe houses, interior construction expansion, cuyes, or other costs. A committee will be appointed by the board and community members to keep the project ongoing and represent the community by: monitoring offspring, collecting donations, checking cuyes per house, advising families how to use personal profits, and monitoring compliance with original project's mission.

Addressing Challenges through Team Strengths

Colton Hail is a senior aerospace engineering student with four years of structural design engineering experience. Building on existing layouts from the families with cuyes houses, he has designed construction options available to reduce material usage and maximize interior space.

Chase Labiste, obtaining a Master of Food Science, will work in conjunction with Esmeralda Farms to assemble pamphlets covering common health issues, maintenance, nutrition, and other helpful tips when breeding cuyes. This pamphlet will be used as a presenting tool when meeting individually with families and as a reference for families to contact cuye vendors and purchasers.

Nicolette Duong wants to help the country where most of her family lives. Peru is a developing country where she has worked with the 40% of Peruvians who do not have basic healthcare, including families who lack treatment for preventable health issues, and whose social concerns are left unattended. She will apply the knowledge gained through her degree in a Master of International Business to provide basic financial literacy.

Challenges

Sustainability Once approved, **Colton, Nicolette, and Chase** will arrive and stay in Peru *May through August* to manage, assist, and obtain materials with the committee and community. Expenses associated with travel will be paid personally by our group. The community of Picol and Nicolette's Peruvian family will provide lodging and food. Along with the committee, the president of Picol has agreed to manage the project after we leave and will be responsible for finding a suitable replacement. A website will be created to include: the proposal, progress photos, reports, construction progress, meetings, offspring, market set up, quarterly budgets, contact emails, maps on how to visit the community, and a link to donate funds to the cause. This website will monitor the community, while inviting response from an audience of restaurant owners as well as other impoverished municipalities. It will spread awareness of a sustainable diet alternative and open options for stakeholders.

Personal Statement

Project Picol provides community members a means to work, assume leadership positions, and gain financial literacy. It will also impact the economy, show the community's charisma outside the borders of Peru, and give hope for those who are impoverished to manage themselves. Project Picol will create **peace of mind and body** for a community that will collaborate to provide a sustainable income and food source while allowing the children of Picol to focus on education.