



KALU YALA WASTE MANAGEMENT AND RECYCLING GUIDE



BACKGROUND

What is the biggest global problem no one is talking about? Trash.

When we trash food, plastic, paper and everything else, it must go somewhere, right? But often that somewhere is a place we choose not to think about. The true story is that somewhere is actually everywhere: this is the story of how our trash affects the whole planet.

Maybe you think your waste is going into a landfill, or to a recycling facility (most likely it's not actually being recycled), and hopefully you compost your food waste to turn it into the soil.

But unfortunately, even though some stuff is going to landfills or recycling, a majority of our waste ends up spreading itself around the globe, either by being transported by wind, water or human; by breaking down into smaller (even microscopic) parts, or by degrading into its chemical components. And these dispersal methods are damaging the health of the animals, people, and ecosystems on this planet.

- Did you know in the past 10 years we've produced more plastic than the whole of the last century?
- Today, most communities are spending more on waste management than they are for school books, fire protection, libraries and parks.
- Americans make up roughly 5% of the world's population, but generate nearly 40% of the world's total waste.
- On a daily basis, the U.S produces enough trash to fill 63,000 garbage trucks.
- The average college student produces 640 pounds of solid waste each year, including roughly 500 disposable cups and 320 pounds of paper.
- In a lifetime, the average American will be leaving a legacy of 90,000 pounds of trash for future generations.

TRASH GOES EVERYWHERE — INCLUDING THE WATER YOU DRINK

- Annually, more than 14 billion pounds of garbage is dumped into the world's ocean (mainly marine life toxic plastic)
- Almost half of all seabird species, 22% of cetaceans, all sea turtles species and a growing list of fish species have been documented with plastic found in or around their bodies.
- Did you know that in Britain's rivers there were fish and shrimp that contain traces of cocaine, MDMA and ketamine?
- Bottled water from major brands like Aquafina, Nestle, and Dasani contains tiny plastic particles. 90% of the water bottles you buy has micro-plastic in it.

Waste Management play an extremely important role in the global cleanliness and sustainability drive, with people's health and the conservation of resources being the responsibility of every government. To ease the pressure on government agencies, numerous privately-managed organizations also play a part in these waste management and recycling programs. In many cities it means that local government agencies have been left with the responsibility of overseeing the work done by these privately held organizations.

Thousands of years ago humans simply dug a hole and buried their refuse and waste. This was an effective technique for these early people because their population was relatively small and they did not produce waste on the same scale or with the levels of complexity that modern humans do. Burying trash helped to prevent bugs and rodents from becoming a nuisance and spreading diseases.

In the modern world burying all of our waste is not a sustainable solution. While primitive humans produced very little waste, and that which was produced would biodegrade quickly, modern humans produce much larger amounts of waste, much of which is not biodegradable. Additionally, many types of waste may be damaging to the soil, ground water and surrounding habitat.

The most important reason for waste collection is the protection of the environment and the health of the population.

Waste can cause air and water pollution. Rotting garbage is also known to produce harmful gases that mix with the air and can cause breathing problems in people. By inspecting the vegetation around landfill sites carefully you can determine the damage that can be caused by garbage and waste if left untreated in the open. To address this problem modern waste management professionals place garbage in lined holes and use bacteria to help facilitate its rapid decomposition. Rotting garbage and waste emanates a foul smell that can cause nausea among people who come into contact with it. It can also be a source for waterborne diseases such as cholera and abdominal conditions and discomfort. Since water sources need to be protected the role of waste disposal companies is very important. These organizations should make it a priority to secure their landfill sites so that water bodies are not affected by the garbage and waste collected from homes and commercial establishments.

Recycling not only helps in conserving our natural resources but also reduces the cost of production of many products. Products such as glass, oil, plastic, paper can all be recycled which will ultimately put less pressure on the natural resources used to manufacture these products.

Lastly, waste management and recycling collection can help conserve our planet's natural beauty which can be flawed by thoughtless disposal of waste, fly-tipping and senseless littering. Landscapes can be ruined through littering and places of tourist interest can lose their attraction; it is also a blight for those who live in areas where waste collection and recycling is not managed effectively and responsibly. Natural beauty is a legacy and a right for future generations and conserving it, as well as our natural resources, for their benefit is our responsibility today.

There are many challenges facing the waste management and recycling industry but there is also a lot of excellent work going on to ensure that this is an industry to be proud of and one that will continue to secure effective, sustainable and ecologically sound waste management and recycling for many years to come.



HOW TO RECYCLE

PLASTIC

WE ONLY RECYCLE PET#1 AND HDPE#2

Plastic #1 includes: Water bottles, soda bottles, juice bottles.

Plastic #2 includes: Milk bottles, yogurt, detergents, bleach, shampoo, cleaning products.

PLEASE, Don't put any single use plastic in this containers! If you find any o these, take it out and put it in landfill trash:

NO straws

NO plastic bags

NO package wrapping or plastic packages that are not #1 or #2

NO food packages

NO food wraps

When we are taking them to the recycling, please make sure to clean them, dry them and put them in the clear trash bags.

Remember: Everything that is not #1 or #2 goes to landfill trash.

CANS

We dispose the cans at the BAR. We reused them with Ryan so we don't take them to the city.

If you want to do an extra-mile you can cleaned them, but we usually just smash them and throw them in the bin.

If Ryan doesn't take the cans anymore, properly clean and dry them, **DON'T** smash them and put them in the clear trash bags.

CARDBOARD

Cardboard that is not wet, or with food residue, we can recycle it! Just make sure its clean, and smashed so it can fit the space for it. Put all the cardboard in a clear trash bag.

There's:

1. **Thin cardboard:** Cereal packages, notebook covers that are not covered in plastic, empty medicine packages, folders, etc.
2. **Thick cardboard:** Corrugates cardboard, material packaging, electronics packaging or similar.

CARDBOARD THAT IS WET OR COVERED IN FOOD

Give it to Zoe and she can use it in the compost or use it as a fire starter!

EGG CARDBOARD

Again, if you find a egg cardboard that is wet or covered in food you can give it to Zoe or you can use it as a starter for fire. *We usually pack it and send it with the rest of the recyclables (put it with the cardboard)*

TETRAPAK (TETRABRICK)

It has to be clean, dry and smashed before putting it in the recycling bin.

Please remove the cap, and please make sure the tetrapak is super clean. We don't want rotten milk smell or cheesy textures.

CANS

We have two different types of cans: Normal size cans (latas) y big cans (latones). The majority of them comes from the kitchen since we usually buy sauces, vegetables and others.

For the recycling of this, it need to be clean, dry and without the label off.

If RYAN accepts cans, give them to him as well!

GLASS

- If you find beer bottles in the trash that belong in the bar, you need to returned them to the bar.
- We often have 2 types of glass bottles: Bottles with fun stoppers, and the ones without fun stoppers.
- If you find a glass bottle without a fun stopper and a cap, you can give them to Sasha so he can reuse it for his rum-vodka distillery company.
- If it doesn't have a cap, then please clean, dry and storage it properly.
- If it has a fun stopper, they can receive it but fun stoppers are not cool because they are embedded into the glass and they actually need to cut it before recycling so please be mindful of not bringing any glass bottle that has those. Suggest to staff and future students seco or ron abuelo, try to buy the plastic version that is recyclable.

CAPS

- **Plastic caps** at the moment are not recyclable in Panama. If you find a place that accepts them, please update the list of recycling stations that is at the end of this guide.
- **Metal caps** can be accepted in any place where they recollect metal. If you find a spot, please update the list of recycling stations that is at the end of this guide.
- **IF YOU CAN'T FIND A SPOT, REUSE THEM!** There's plenty of fun DIY projects that students or staff can do to beautify our place.

BATTERIES

Batteries need to be collected in a jar. Once it's full please look for the right place to send it at the end of this guide.

ELECTRONIC WASTE

You don't need to clean this waste if its has some type of dirt, but not all the recycling station accept this waste so please look for the right place to send it at the end of this guide.

BULKY WASTE

Bulky waste or bulky refuse is a technical term taken from waste management to describe waste types that are too large to be accepted by the regular waste collection. Bulky waste items include discarded furniture (couches, recliners, tables), large appliances (refrigerators, ovens, TVs), and plumbing fixtures (bathtubs, toilets, sinks).

If you have any of this waste please look for the right place to send it at the end of this guide.



PLEASE REMEMBER

Our trash station is not supposed to be mixed with food. All food waste HAS to go to the proper space. Remind kitchen crew that all the tetrapaks, cans, bottles and other products need to be CLEAN AND DRY.

Dogs can also be a problem with food in our trash. If they smell food inside the bags, they are most definitely going to open the bag, spreading all the trash everywhere, creating a maggot field, which trust me...it's not cool.



This is what happens when it is not properly cleaned. Maggots appear, which is a health risk for you, the people who are disposing the trash and it's not gonna be accepted in recycling stations. For tetrapaks, cow milk's are the fastest to get nasty and end up with maggots.

Big cans (Latones) are tricky because they are opened with a knife, we understand that they might get scared of getting cut.

One idea they can have is put water, a splash of soap, shake it and leave it overnight. The next day, rinse it, take the label out and put it in trash station.





WHAT IF GUESTS WANTS TO KNOW ABOUT HOW WE MANAGE OUR WASTE?

It's very simple: we show them **THE FACTS!**

- Kalu Yala **bi-weekly** produces approximately **97,3Kg** (214,6Lb) of solid waste.
- A Kalu Yalan produces approximately **0,20Kg** (0,44Lb) of solid waste a day. That's **90,5% less than an American** (2,1kg) and **87,5% less than a Panamanian** (1,6Kg).

(If you want to know more about our trash measurement results:

<https://docs.google.com/spreadsheets/d/1wOtSQNpYtGOGxS8c0QE0rm-9OZ9VHiQZi0n251Rpb7o>)

THINGS WE DO WITH OUR TRASH

BAR

- Cans - reusing them with Ryan or properly recycle them.
- Beer bottles - we returned them
- Glass bottles - if they have fun stoppers we don't use them
- If they don't, we give them to sasha -if they have caps- if they don't then we recycled them in the city
- Food waste - Compost (own compost for food forest project — fruits, herbs, essential for drinks)
- Fruit Packaging - fish nets can be reusable and we use reusable bags
- **Ice - Single use plastic** (now that we have a freezer we can make ice. The freezer runs by the solar panel)
- We have metal straws and cups so we don't use any plastic. We sometimes use biodegradable plastic cups.

DISTILL

- Yeast - inside wax paper outside metal (packaging)
- Enzymes - one enzyme: 60 oz plastic bottle— one enzyme after 3 uses, you recycle.
- Other enzyme: after 6 uses, you recycled them.
- The waste from the yuca and the melasas are all used for the compost (fertilizer for Tara's plants)
- Propane- refill it every-time

FOOD

- Kitchen Scraps: Chickens or Compost (Building Soil)
- Chickens: Almost anything except grease, refined sugar (Chicken feed once we get more chickens)
- EGGS SHELLS - Compost or the chickens can eat to replenishes their calcium.
- COFFEE - spot treatment

MEAT

- Leftover meat, bones, grease, blood—those things get buried in places where we are not gonna plant soon (around big trees, plants that grow quickly)
- Its not very healthy for chicken to eat flesh.—they can become canibalistic, other animals can come because they smell the meat
- CHICKEN FEATHERS- they put in the normal compost, because they are full with phosphorus.



EVERY WEEK

- **EVERY THURSDAY** you should be taking landfill trash. Remember that is not only the trash that is in the recycling station, but also all of Town Square (kitchen, classrooms, d-rancho, bar, grandcho, Selina and Bodhi)
- **Same goes to trash in San Miguel:** Make sure to take the landfill trash (if there's any) in the kitchen area, and outside the house (where the big table is).
- **ALL TRASH goes to Casa Llena landfill station:** The station is next to the gate. **REMEMBER** to **NOT** throw trash because it can ripped and dogs get in the trash. Put it nicely, and then properly close the door. If you leave the door open, dogs are gonna get into it.

EVERY TWO WEEKS

- **TETRAPAK, CANS, EGG CARTON AND CARDBOARD** goes to Recycling in the city. Along with the landfill waste, bring the recyclables in CLEAR trash bags (**THIS IS IMPORTANT! If you go with other type of bag they are not going to accept it**)
- **Bring down STAFF waste:** ask If they have any and bring it down. Try to put all of it in one big bag so you don't bring too many bags with you. Put it with the rest of the trash you are bringing down.

EVERY MONTH

- **PLASTIC, GLASS AND ELECTRONIC WASTE** goes to Recycling in the city. Along with the landfill waste, bring the recyclables in CLEAR trash bags (**THIS IS IMPORTANT! If you go with other type of bag they are not going to accept it**)

EVERY THREE MONTHS

- **BULKY WASTE** needs to be picked up from the Valley and San Miguel (if there's any)

ONCE IN A WHILE

- If your batteries jar is full, bring it down
- If your metal caps container is full and you found a place that collects them, bring it down.

RECYCLING STATIONS

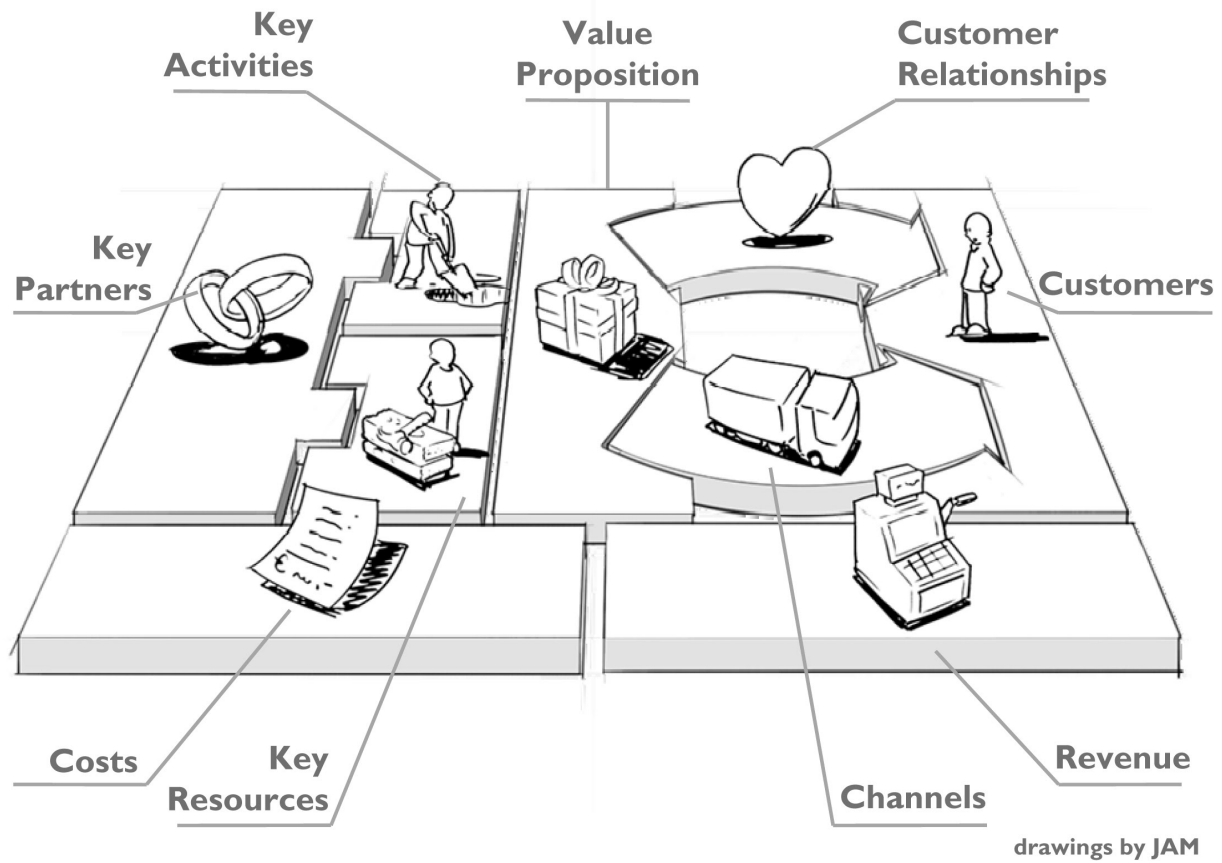
Empresa	Ubicación	Materiales que recolectan	Contacto	celular	teléfono
Recimetal	Las Cumbres	Todos menos vidrio	Adela, Jenny		237-0533/3286
Industria Panameña de Papel (IPEL)	Chilibre	Cartón incluye empaque de huevos	Maite Villarreal	6617-1331	216-6555
Red Ecológica	Tumba Muerto	Papel blanco, colores, cartón tetrapak, vidrio	Carlos González	6140-5768	398-0560
Gesvil	24 de Diciembre	Todos	Jordi Lussa	6781-4099	263-0208
Recicla Panama	Los Pueblos	Electrónica	Juan Corradine	6780-3701	391-2376/2377
Mercurio Cero		Pilas	Jorge Conte	6649-3220	391-9181

Here are the Recycle Station near this area, please feel free to contact them in case you need assistance or questions regarding our trash station. The actual link of this file is:

https://docs.google.com/spreadsheets/d/1bRa9am-CHo1Z_fNK6LAVoPIlpQ7eBvohKsWkOmseSmY

If you want to update this list, use this link to do it and make sure to add a new screenshot to this guide.

Small Business Consulting Utilizing the Lean Canvas Model



Bailee Lawrence
Co-director of Business
Summer 2018

Executive Summary

This director led project was a business consulting exercise that developed a full current state assessment and recommendations for each of the small businesses currently at Kalu Yala- Curioso Cafe, Tres Brazos Outfitters, Kalu Yala Farms and Mountain Laurel Building Co. It was completed through weekly interviews with each business owner with evaluation based on the lean canvas model. We created questions to understand the business plan as a whole, operation management, hiring and scalability plans, financial projections, and more. After analyzing this qualitative data, we were able to come up with concrete recommendations for each business to further develop their plans, assist them in scalability and hiring, improved POS, and branding and marketing content. Each business will receive a report that will outline their assessment and recommendations. Besides the concrete assistance that we provided each business- such as hiring new interns or TA's for next semester, developing a name and website, etc, our weekly conversations added value to each business owner by creating a space and assistance to actively think about their own business models



KALU YALA FARMS



Mountain Laurel Building
Co.

Justification

Kalu Yala is a business which adheres to a triple bottom line approach to measure its impact and success which is the way that it defines sustainability in this context. In order to be a “sustainable” town, Kalu Yala must provide an economy, jobs and reasons for residents and guests to come (and stay) here. The small businesses are this extension of Kalu Yala as a whole, and operate to create value for themselves and the town. Tres Brazos Outfitters, Curioso Cafe, Mountain Laurel Building Co and the KY farms each employ residents, sell goods or services and overall, strengthen KY’s mission and vision toward creating a sustainable town. By consulting each of the businesses on site, we are improving their business designs and therefore, help them become more “sustainable” in the triple bottom line.

One example of this is pivoting KY farms original business plan from a greenhouse producing vegetables for an offsite restaurant to a Cacao farm that will utilize an agroforestry system to produce cacao, mango, banana and plantain while also creating an extended ecotourism opportunity. Cacao will be more profitable to sell in a general market, and can also be processed and sold on site instead of transported in refrigerated trucks to the city for a few dollars a pound. Overall, the conversation with Zoe and Jimmy about the future of the farm made it clear that greenhouse vegetables would not be a profitable endeavor and the resulting business idea will be more sustainable in terms of the planet because of a better agriculture production (carbon sequestration, eco-tourism, lack of plastic packaging, no requirement for refrigeration or large scale transport etc), people- because of the reallocation of labor resources instead hiring one person to manage a greenhouse we can integrate our current labor force into farming a system that they already know and profit- as cacao will sell for more per pound with less processing, a lower investment cost with no additional greenhouses needing to be built, etc.

The reports we will provide to each of the business owners will give clear instructions about next steps in terms of recommendations, and therefore, be completely self sustaining after we leave. The consulting created a framework for thinking about business development in order to get business owners to critically think about their own models instead of just a single improvement or product like building a website. We will provide each business with a hiring plan, a training guide specific to their business, tools such as financial templates and scalability plans that outline timelines for items according to their own thoughts. This project is completely scalable outside of Kalu Yala as business consulting can be done anywhere and for any organization (non-profit, governmental, social business, academia, etc) the possibilities are endless.

Methodology

This project was comprised of a few main steps and workflow that was followed each week.

1. First, we would lecture with Jimmy about a specific topic concerning the lean canvas model from the book “The Business Model Generation”. (20 hrs)

- a. These topics included Social business model, triple bottom line, Ideation: brain mapping, lean canvas vs. traditional business model, lean canvas briefing, mission/vision, Project Management, Marketing + PR, Sales Funnels, Delivery & Feedback, Human Resources, Financial Projections + Accounting and Fundraising: Equity + Debt
2. Next, we set up interview times with each of the small businesses: TBO, Curioso, Mountain Laurel Building Co. and KY Farms concerning the topic of the week. Utilizing the lean canvas model as a guide, student created questions to assess the businesses on their current state in each category. (56 hrs)
 - a. This data was collected in interview form notes and then re-written and compiled together for each business
3. One of the obstacles that we constantly encountered was the availability of the business owners, availability to type notes and reports and pivoting in business ideas between businesses.
 - a. Many business owners at Kalu Yala are also directors in the institute and therefore, very busy with their own programs, DLP, and student led projects. Wes, the builder on site had not actively thought of himself as a business and so answering a lot of the technical business questions required him to take critical time away from the build site. In addition, Marie, the owner of TBO, was gone for two weeks in the city following a major accident. These sort of interruptions and business of employee life at Kalu Yala made meetings sporadic and not always on time.
4. After interviewing each business our student, Abby, rewrote the notes into a cohesive report that outlined each category for the business. (30 hrs)
5. Following interviews, we highlighted pain points or points of potential improvement for each business and created a detailed guide on how to solve these issues. (20 hrs)
 - a. For example, for Wes our first step was creating a business name for him that encompassed his passions, brand, values and business as a whole. Brainstorming sessions lasted about 4 hours in total.
6. After creating the current state assessment, recommendations and plans of actions, we wrote up individual reports for each business for them to use. (20 hrs)

Research

By interviewing each of the businesses individually about their business plans, points of pain, and other topics we were able to gain first hand data points. We came into each business with no ideas on what we would do to help, or even that we could help make the business better in any way. We wanted to be as impartial as possible and so mainly hosted conversations for businesses to tell us their own needs. Because of this, the solutions that we created for each of the businesses came directly from working with them.

Alternatives?

1. For Tres Brazos Outfitters we had originally looked into assisting Marie in organizing her google drive, her finances and all of the back end of her business. She seemed to

struggle the most with these aspects of organization, However, after discussing it with her we decided that it would not be the best solution. For one, she did not feel comfortable sharing her financial position with a student or giving us access to all of her documents. In addition, in the middle of the semester her one student left the program early, freeing up time for Marie to dedicate herself to the backend of her business. In addition, she was absent from the valley due to her medical emergency and could not meet with us for several weeks. Instead, we posted a job opening for her to find a TBO intern and trained her in how to use the software for her to manage the posting herself. This offered her a way to take charge of finding someone to assist her in her business.

2. For the project overall we had thought about including the Tienda and Sasha's rum business in our assessments but chose to keep them out for a few reasons. One, Ericka Quiroz who runs the Tienda is often away from the valley to complete procurement and fiance runs as she is the manager of both departments this semester. This would have made meeting with her difficult over the course of the whole semester. We also determined after speaking with Sasha that he was more of a hobbyist in the rum world and did not really need or want the consulting at this point in his business. Both of these businesses could be revisited in another semester project as they both have a lot of potential to create value to the Kalu Yala community.

Limitations

Our main obstacles faced, as mentioned before, were working with other many other peoples schedules, power issues and a lack of knowledge in the fields we were consulting about. We overcame all of these issues thanks to patience, efficient systems at Kalu Yala and research.

1. For example, when calculating potential profit margins for the farm we had to complete research on how far apart each plant would be, how quickly they produce fruit, how much restaurants off-site would buy veggies like Kale, Bok Choy etc for, how cacao grows, how quickly it produces fruit and the cost to build a processing plant.
2. The power issue seems to be pretty innate to Kalu Yala but because of its prevalence over the semesters there are now systems in place to combat it such as sending all of our devices out on trucks to charge during the day and working in the afternoon.
3. If this project were to continue each semester more businesses could be reached and a steady schedule for interviews could be set up so that each business could work it around it successfully.

Outcome

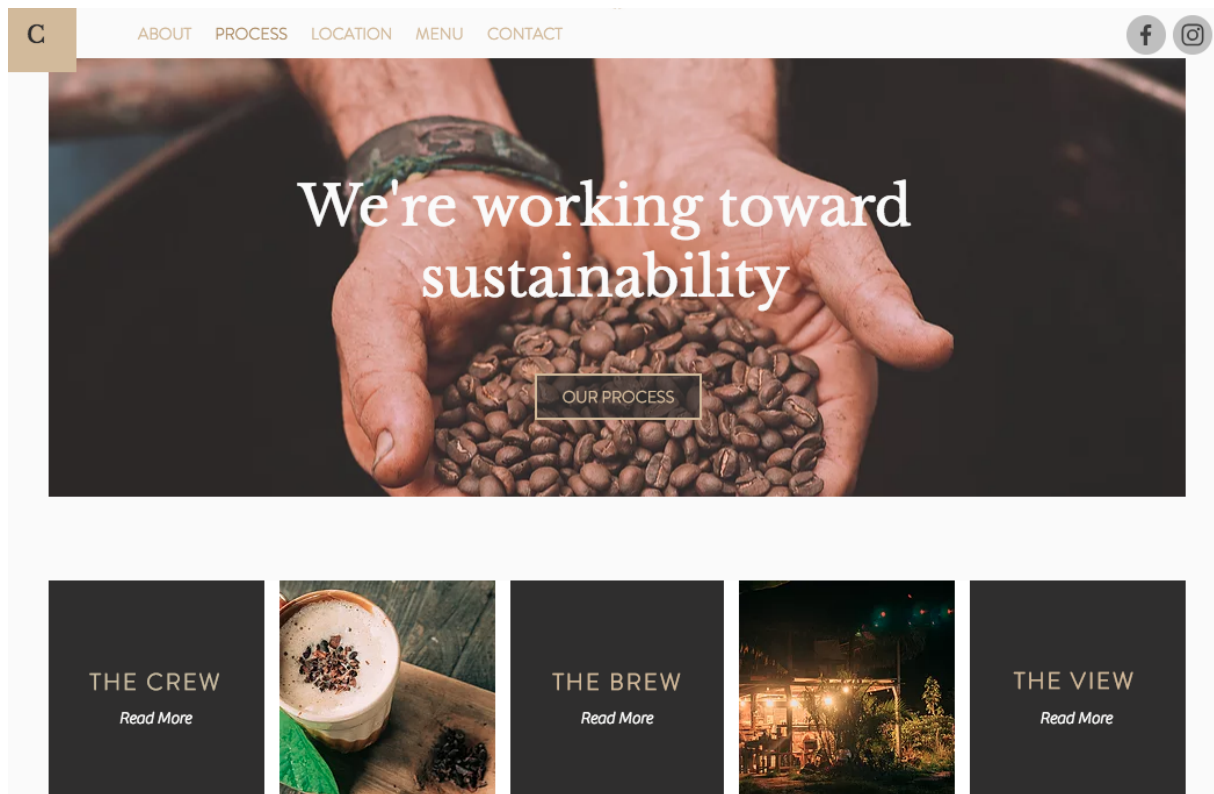
Each owner will be presented with a current state assessment, recommendations and tangible solutions to many of the issues they face in each of their specific business.

Curioso Cafe and Roaster

1. Curioso was the most developed business in terms of traditional business plan and financial calculations. Because of this, most of the focus was for the physical space and

brand development in Kalu Yala and abroad. I wanted to continue to improve its physical space, POS design, accurate signage for available drink and food options, launch a website and instagram, create a hiring a training and hiring guide for new baristas, improve roaster design and develop a scalability plan for us.

- a. After speaking with Abby we created new signage for Blissballs, Chai lattes, and Tiger Mylk in order to improve communication with our customers about the availability of these specific items as they vary depending on current supply.
- b. With the help of Anat, our on-site graphic designer, we created and launched a website for Curioso (www.curiosocoffee.com) that includes photography from roasting, in depth descriptions about our triple bottom line business model and options for potential customers to subscribe to our site to get updates on our project of expanding to the states. The website was promoted on our new Instagram which was also created this semester to increase our brand presence and help ease our operations into the states. We have increased to over 100 followers since our launch.



(Figure 1)

- c. Besides web improvements, we made very accurate calculations for the profit margins of each item in the cafe based on cost and sales point for Kalu Yala staff and students and guests as well as for different milks. These calculations allowed Curioso, for the first time, to properly calculate profit instead of just gross sales.

This is very important to the business as Curioso employees a profit sharing model to pay its employees this semester as a part of its triple bottom line.

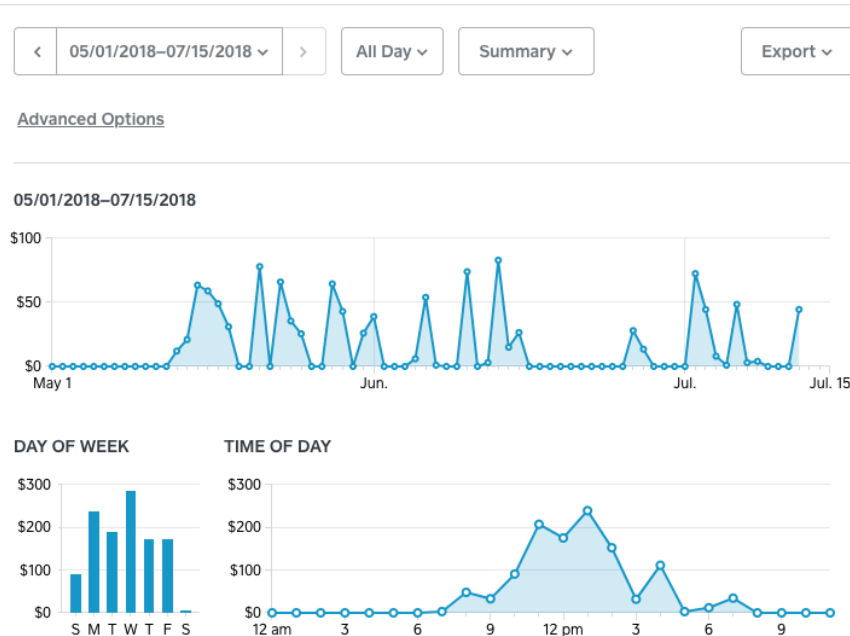
	A	B	C	D	E	F	G	H	I	J	K	L
1	Hot Brew KY discount	Price	Amount (weig	grams	cost per gram	# of servings		Hot Brew	Price	Amount (weight	grams	cost per gram
2		\$7	1	453.592	\$0.015	64.80			\$7	1	453.592	\$0.015
3	Grams / 10oz serving	7 per cup						Grams / 10oz serving	7 per cup			
4	Cost / Serving	\$0.11						Cost / Serving	\$0.11			
5	Price / Serving	\$1.00						Price / Serving	\$2.00			
6	Profit /Serving	\$0.89						Profit /Serving	\$1.89			
7	Profit Margin	89.20%						Profit Margin	0.9459867017			
8												
9	Cold Brew KY discount	Price	Amount (weig	grams	cost per gram	# of servings		Hot Brew	Price	Amount (weight	grams	cost per gram
10		\$7	1	367	\$0.019	15.29			\$7	1	453.592	\$0.015
11	Grams / 12oz serving	24 per cup						Grams / 10oz serving	7 per cup			
12	Cost / Serving	\$0.46						Cost / Serving	\$0.11			
13	Price / Serving	\$2.00						Price / Serving	\$2.00			
14	Profit /Serving	\$1.54						Profit /Serving	\$1.89			
15	Profit Margin	77.11%						Profit Margin	0.9459867017			
16												
17	Chai Latte w/ Soy	Price	Amount (weig	grams	cost per gram	# of servings		Cold Brew	Price	Amount (weight	grams	cost per gram
18									\$7	1	367	\$0.019
19	Grams / 10oz serving							Grams / 12oz serving	24 per cup			
20	Cost / Serving	\$0.46						Cost / Serving	\$0.46			
21	Price / Serving	\$3.00						Price / Serving	\$3.00			
22	Profit /Serving	\$2.52						Profit /Serving	\$2.54			
23	Profit Margin	0.84						Profit Margin	0.8474114441			

(Figure 2)

- d. In the physical space, Anat and I sanded down the front of the cafe in order to improve the wood texture and look. In addition, we created a couch for sitting paired with a small coffee table that opens up the space for seating and gives a variety of options. Before the couch, tables were awkwardly spaced, making it hard to navigate within the cafe and relax while studying or eating meals. The new design allows for a much more open floor plan that gives eight people the option of sitting at tables for studying or eating, four people the option on sitting on high stools in the bar area facing the Kalu Yala entrance as well as the couch option which can hold four people as well. This greatly improves the maximum seating capacity of the space.
- e. In addition to furniture creation and painting improvements, Wes and Will, our local builders added an extended roof to the front of the cafe which provides additional shade and square footage to the cafe. This allows for an additional table to be placed outside, on the other side of the walkway in a porch area. This also greatly reduced the flooding experienced during heavy rains and cools the area significantly during the day- making it more appealing to customers trying to get away from the heat and rain.
- f. In the spirit of space improvement and brand image, Anat has cut out a large wooden version of the Curioso logo from local waste-wood and carved it by hand to match our digital version which will be placed on the newly sanded front of the cafe.
- g. Curioso use to struggle with cold chai and milk going bad because of a lack of proper cold storage. In order to combat this issue we upgraded our cooler to a large one that allows for more prepared drinks to be stored for a longer period of time.

- h. A hiring and training guide was created which mimics a training guide for cafes in the states and includes step by step instructions on how to prepare individual drinks, run backend financials, and roast coffee.
- i. On the backend of things, Curioso has fully implemented Square, an app that allows us to keep track of sales digitally instead of on paper and create reports that illustrate trends and have been invaluable in determining best sellers, our profit margins for individual drinks and how best to split profits with our employees

(Figure 3)



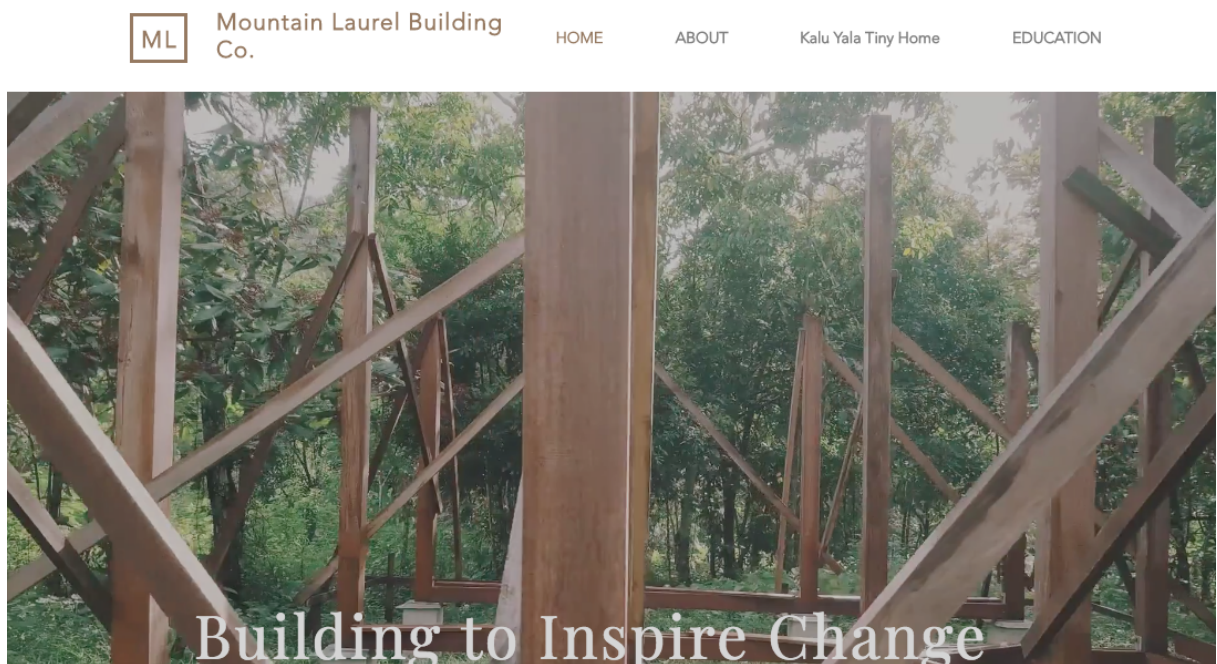
- j. Roasting wise, Curioso has made massive improvements this semester in terms of roaster design and coffee quality. We sourced a naturally processed bean which is more environmentally friendly and better aligned with our mission and vision as a brand. We completed multiple, small batch roasting experiments after our consulting sessions where we tested different ways to roast beans including aeration, temperature drop variation, varied batch sizes, and more. This has led to a more consistent, and faster roasting process.
- k. The Lean Canvas Model exercise gave us greater insight into our business and the way it needs to develop in the coming months as we expand operations into the states. We will continue to use the types of questions asked by Abby to create value for our company.

Mountain Laurel Building Co.

1. Mountain Laurel Building Co (formerly KY Homes) was officially created this semester thanks to the work of the business department at Kalu Yala. Wes Stiner, our lead builder on site had no formal business plan before our consulting sessions. We were able to

utilize many of the sources he did have, however, such as his connections to Hope for Architecture to develop a brand that he is connected with and can begin to fully develop.

- a. After many hours of deliberation and structured brainstorming sessions, Wes chose the name Mountain Laurel Building co. after the flower that he found all along the Appalachian Trail. The flower is special to him because of his five month journey hiking the trail and so, stands out as a personal touch to the brand.
- b. After the name was chosen, we created a website, instagram, and facebook page to give life to his new brand.




(Figure 4)

- c. During our sessions with Wes, we found that the thing he needed the most was more hands to help on the build site. Earlier this semester, his helping hand, quit due to a variety of family issues that did not allow him to travel to the valley as much. Wes confessed that the next employee he wants would be someone who is passionate about sustainability and developing skills in timber framing and masonry instead of just paying another laborer who is not invested in the project. This led us to develop a hiring post and plan for Wes and has led to the set up of multiple interviews for the year long apprenticeship. We hope to have an apprentice for Wes for next semester due to the implementation of this program.
- d. In addition to the apprenticeship we assisted Wes in creating his own company values and mission statement which will be essential as he develops his brand further.
- e. On a more practical side of things, we have assisted Wes in creating a GANT chart of stages in building a house which will be important as house production increases and he is managing a team of individuals.



(Figure 5)

- f. As business consultants we also facilitated conversations with equipment suppliers to set up payment plans and delivery options for screws needed to build the first cottage home.



ICRH
SUPPLIERS PARTNER

COTIZACIÓN

13-180713-02

Bodega:
Plaza Cardury, Local No. 9
El Espino, La Chorrera
Teléfono: 258-1710
258-1711

Vendedor:

Gabriel **PIRES ÁLVAREZ**

Cliente: KALU YALA			Atención: WES STINER		Fecha: 13/07/2018		Validez de la oferta: 5 DÍAS	
REVISIÓN	CÓDIGO	DESCRIPCIÓN	MEDIDA	ACABADO	CANTIDAD SOLICITADA		PRECIO CENTENAR	TOTAL
					BULTOS	PIEZAS		
01		305 SS AQUARE BUGLE HEAD DECK SCREW	#10 x 2-1/2	PASSIVATED	-	4,350	\$ 13.55	\$ 589.43
02		305 SS AQUARE BUGLE HEAD DECK SCREW	#10 x 4"	PASSIVATED	-	2,800	\$ 20.35	\$ 569.80
03								
04								
05								
06								
07								
08								
								<div>Sub-total: \$ 1,159.23</div> <div>I.T.B.M.: \$ 81.15</div> <div>Total: \$ 1,240.37</div>

NOTA: Precios válidos por la totalidad de la orden
Las cantidades pueden variar sin previo aviso

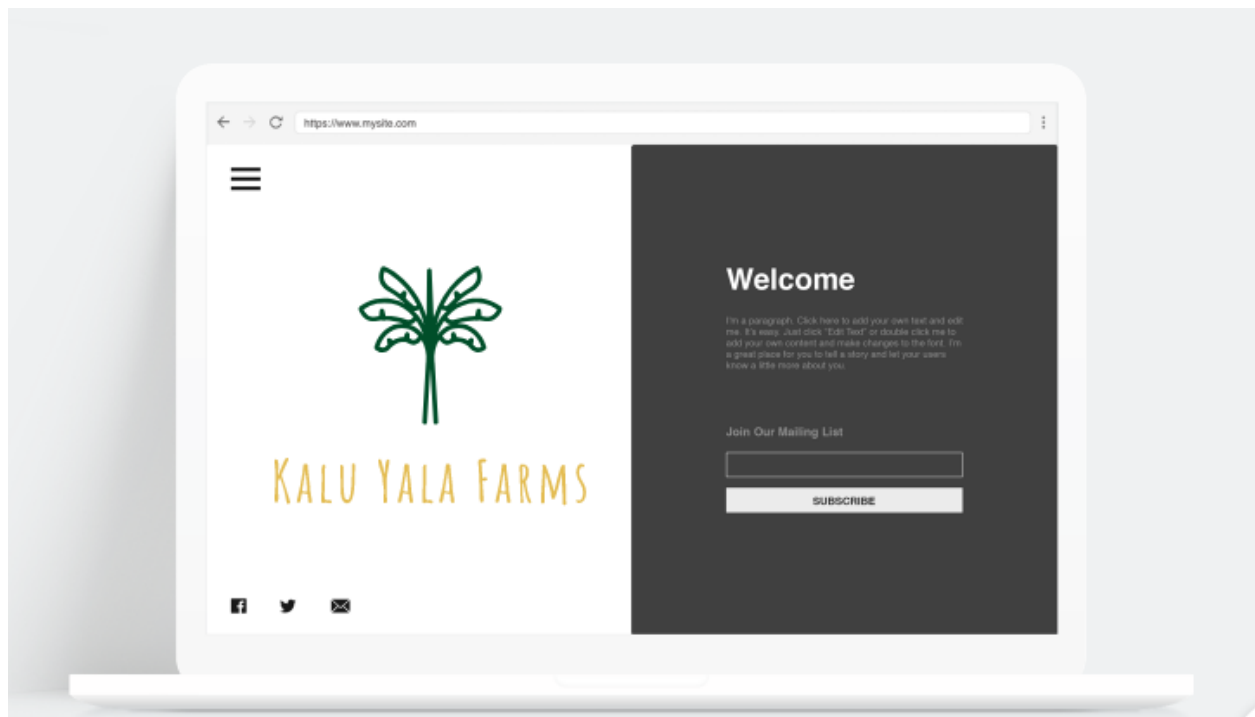
(Figure 6)

KY Farms

We met with Zoe multiple times to speak about the realistic future of the Farm here at Kalu Yala. We had originally discussed growing vegetables (kale, bok choy, eggplant, cucumber) for a local restaurant in Panama City in our two current greenhouses. After building out a business plan and finding that the feasibility and profitability were both low unless a high level of scalability (many hectares, investment in a refrigerated truck, a packaging plant, increased labor

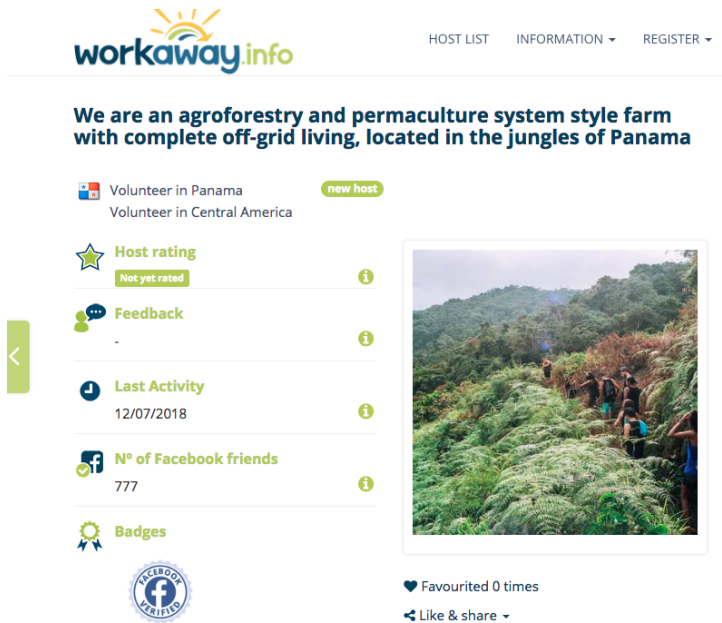
force etc) as well as the death of hundreds of seeds for the greenhouse, we pivoted the business idea completely. After receiving hundreds of cacao seeds from our neighbors and on our own farm, the team decided it would make more financial and brand sense to create a ten hectare agroforestry system that will include cacao, banana, plantain and mango. These fruits can be intercropped, require less management, and sell at a higher premium (mainly the cacao) on both the wholesale and retail market. In addition, the agroforestry plan is more aligned with the farms values of climate friendly agriculture, soil regeneration, biodiversity and local economics.

1. Our business pivot has led to the planting of over 250 cacao seeds this semester in order to begin the testing process before a scalability plan for 10 hectares can be implemented successfully.
2. We have successfully developed a logo, values and mission statement for the farm (can be found in the KY Farms Current State Assessment).



(Figure 7)

3. We have created a financial modeling report that outlines the costs and revenue potential for the farm if they successfully implement this agroforestry system.
4. A hiring plan and post has been created for Zoe to potentially get a TA or intern for next semester. This post has been advertised on the KY website as well as Workaway.com. We plan to have an intern hired before or during the break of semesters.



(Figure 8)

5. In addition to a hiring plan we have a farm team management plan with our current team so that labor can be allocated in a way that is beneficial to the farm without additional investment in labor.
6. We have created a financial plan that outlines the cost and potential revenue each year starting at when the trees are planted to the time that they fruit.

Tres Brazos Outfitters

Through our interviews with TBO, we found that the owner Marie struggles with time management between her company and as an OR director for Kalu Yala as well as structured systems that make it easy for her to gain exposure and feedback for her products and services. This semester she implemented Tues-Data, a day for students to try handmade “Nutes” and sign up for hikes, and gather data about her projects. Her ability to properly spend time in her TBO storefront was challenged as power and wifi became more scarce and she felt that she could not get anything done- on her business or director project side and began to spend less time in TBO. This led to decreased sales of nutes and potentially, her trips. Our main actionable item for Marie was to hire an intern to man the storefront, act as a guide in leading hikes, and develop and organize business items from the backend.

1. We have successfully posted and began to interview applicants for this intern position. Instead of turning the whole process to Kalu Yala’s HR, we gave Marie all of the tools that she would need in order to find and hire an assistant herself. These tools will be more valuable in the long term as she builds out her team even further. We plan to have an intern hired for her by the end of the semester break.

[← Job Openings](#)

Outdoor Recreation Business Intern

Hospitality – Panama, Panama

Department

Hospitality

Employment Type

Full-Time

Minimum Experience

Entry-level

[Apply for this Job](#)

Why Kalu Yala?

Kalu Yala is a place to work, learn, grow, and live with a diverse team of sustainably-minded people working to achieving our common goal of demonstrating a better way to live. We do this through completion of our individual roles and expressing our creativity and unique style. We are a pro-active, professional, and team-first culture. Kalu Yala is not just about goals or technical skills; we represent a new way of thinking about companies, about towns, about the world. We are constantly encouraging our employees to use their varied experience in brainstorming solutions and apply those ideas to our specific setting. We are seeking employees that are excited to build new relationships and connect with others in Panama for our next semester which starts September 2018.

Job Description:

You are an experience hiking guide and have interest in helping develop an ecotourism business as well as lead guests and residents on unforgettable outdoor adventures. You are passionate about sustainability and conservation and let it show through your informative guides and lifestyle. You are hospitable and can greet guests with a genuine smile. You have interest in working in a variety of social media platforms such as TripAdvisor and Facebook to help make a business thrive.

(Figure 9)

2. Another issue that Marie struggled with was the lack of reviews on TripAdvisor and
3. Facebook for Tres Brazos Outfitters. In order to grow her online presence, we created an automatic email with links to rate her after Bodhi Guests left Kalu Yala. We successfully collaborated with the Bodhi and hospitality team to get this implemented this semester.
4. We created a scalability plan for TBO that illustrates when Marie should begin to think about hiring another team member in direct correlation with how many guided hikes she will lead.

Lessons Learned

This project gave me a better understanding of business consulting as a whole (a career field that I am thoroughly interested in) and how to manage a student and other staff members. I have never really managed anyone before- especially in an educational sense and through this project, I was able to pinpoint my own gaps in communication (both with my student and other business owners). If someone was to pick up this project in the future I would say time management, planning for the future and making setting clear expectations for business owners and students would be important in the success of the project. I also learned that facilitating a conversation or space to think critically about a problem is sometimes all that you can do and all that a person needs. I came into this project wanting to inherently solve all the problems of each business and give them concrete progress through projects, documents, financial modeling, website creation etc. However, some business owners like Marie did not need anything more than to think about her business from a different perspective in order to recognize her need to

hire a TA so she could complete all of the back end stuff herself. She did not need, Jimmy or Abby to teach her anything new, make her a new website or organize her google drive for her. Instead, she needed a space to vent her frustrations in order to come up with solutions on her own. I think that this is a really important lesson for me and anyone who wants to help small businesses in the future.

Continuity Plan

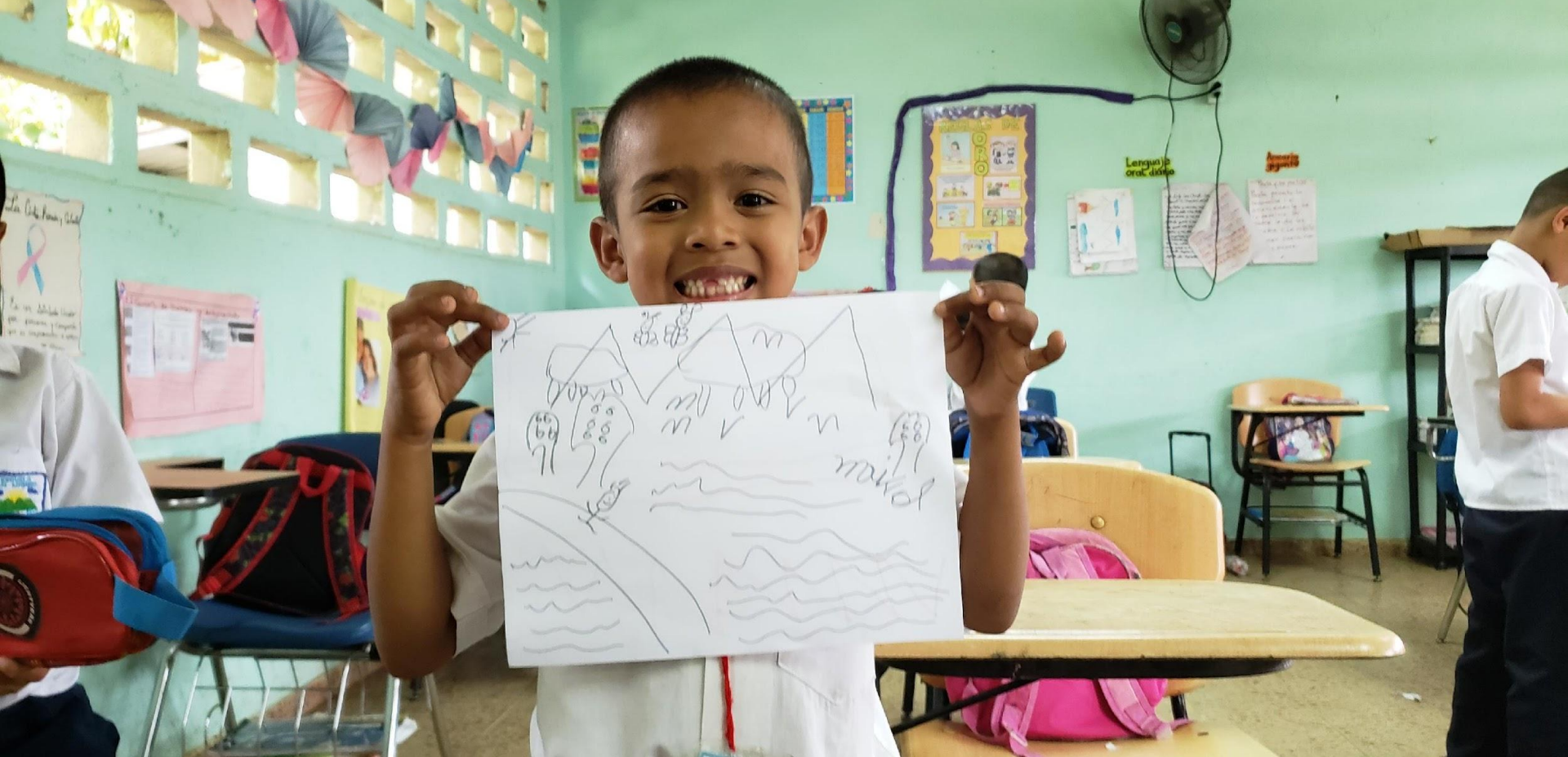
With the current state assessment, recommendations and actionable items for each business, we have created a living document that each owner can utilize to make actual changes. Some of these changes have already occurred and some will happen down the line. But the important part is each business has a scalability plan in order to know when to make those changes and improvements. The changes made this semester due to these projects have greatly improved business for owners as well as for customers. In the cafe, for example, the improvements to a POS system, the physical space, and financial build out makes the cafe more pleasant to be in and easier for employees to run, therefore, increasing sales and growth.

Other business students can continue to build on this project by meeting with other business owners such as the Tienda, Sasha and his rum company and whatever other entrepreneurial ventures there will be at Kalu Yala in the future. In addition, many of the scalability plans for each of the businesses will be more relevant as Kalu Yala grows in population (either residents or guests) in which case a business director or student may revisit the plans to look for guidance for each of the businesses for their next steps. This could mean hiring a TA or employee, investing in a cacao processing equipment, buying more seeds, creating a better logo, begin online sales, or more.

I think that this project could be made better if a designer was able to create a template of questions and the lean canvas model that business owners could complete themselves at different stages in their growth. That way, a consultant may not even be needed. This document could also live with a re-established incubator program at Kalu Yala.

Sources

1. Daniels, Stephanie. "WWF- Developing Best Practice Guidelines for Sustainable Models of Cocoa Production to Maximize Their Impacts on Biodiversity Protection ." *World Wildlife Fund*, 22 Dec. 2006.
2. Jagoret, Patrick, et al. "Sustainable Cacao Production, Learning from Agroforestry ." *Perspective: Ecological Intensification*, no. 27, May 2014.
3. Osterwalder, Alexander; Pigneur, Yves. *Business Model Generation* Hoboken, NJ: Wiley, 2013



BEYOND THE BOUNDS

A DLP by abuela

1.

**WHAT IS
BEYOND THE
BOUNDS?**

2.

**WHY THIS
PROJECT
MATTERS?**

HOW WE DID IT?



Phase 1: Planning

I planned the schedule of the meetings with the teachers, to know them and to know the work we are doing and the presentations we were planning with the students.

I get in touch with my friends and also partners who work in different local youth movements across the country to see if they are available and if they are willing to do so.

Phase 2: Implementation

We set up meetings with the collaborators and the school so that they could get to know each other and focus on the topics they would touch. We also set dates and activities that would take place during the classes.

Phase 3: Monitoring

Monitoring with collaborators and teaching staff of the school (in case there were possible changes in the dates - what happened -) and record of activities in the Gantt Chart.

THE DATES

4 de Octubre: Elsie Ducreux – Social Innovation (University of Panama)

5 de Octubre: Elsie Ducreux – Sustainability Class (La Mesa)

15 de Octubre: Elsie Ducreux: Talk with Parents (La Mesa)

9 de Noviembre: Irma Hernández - Spanish, Luis Cruz - Science

13 de Noviembre Elsie Ducreux – Social Innovation (USMA)

1

SCHOOL

4

YOUNG LEADERS

300+

STUDENTS



October 4th: Social Innovation Talk with Students and Teachers from University of Panama.

October 5th: Sustainability
Class for 9th Grade Students
at C.E.B.G La Mesa.





October 15th: Talk with 250+ Parents about Sustainable Development Goals and how Kalu Yala is working with those goals.



October 15th: Talk with 250+ Parents about Sustainable Development Goals and how Kalu Yala is working with those goals.



November 1st: Meeting between EsParaTodxs (Sex Ed) and the Director of C.E.B.G La Mesa.



November 9th: Oral Expression Class with Irma Hernandez (7th Grade) and Youth Leadership and Entrepreneurship Class with Luis Cruz (9th Grade) in C.E.B.G. La Mesa.



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KALU YALA

We are building a new sustainable town.

Location

At 7000 meters above sea level, the town is built on a hillside.

Ubicación

En la zona de alta montaña, a 7000 metros sobre el nivel del mar.

Nature

Surrounded by mountains and rich biodiversity, the town is built on a hillside.

Naturaleza

Alrededor de las montañas y la rica biodiversidad, el pueblo se construye en una colina.

Institute

Students and young adults gather here to study and search for their dreams in sustainability and quality of living.

Instituto

Los estudiantes y jóvenes se reúnen aquí para estudiar y buscar sus sueños en la sostenibilidad y la calidad de vida.

Food

Farm-to-table meals prepared with the ingredients our valley offers us.

Comida

Alimentos hechos a mano preparados con los ingredientes que nuestra valle nos ofrece.

Estamos construyendo

We are building a new sustainable town.

November 13th: Social Innovation Talk with Students and Teachers from Universidad Católica Santa María La Antigua (USMA)

3.

**WHAT
HAPPENS
NEXT?**