





Round 3 EXECUTION AND SCALE-UP

ECOCO

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EXECUTION AND SCALE-UP

A. Social business description

A1. Social mantra

Our previous mantra "Transforming coconut waste into sustainable goods while empowering communities for a greener and better future"

Our mantra now "Repurposing coconut waste and employing vulnerable women for a greener and better future"

• The one-liner's development benefits from the key stakeholders' feedback

Global Coaching with Lucie Bourgeois, President at Umalia.

We had our session coaching with Lucie Bourgeois, we asked her opinion about our mantra and what would change, she said that in general it was great, but she advised us to make it short and catchy. Even she give us the word "repurposing" which we liked and implemented in our new mantra.









Certified coaches

As well, we asked our coaches some advised and they told us:

- 1. Arturo Rivera: "The idea is to show that women are given job opportunities precisely in vulnerable conditions, not entrepreneurs or professionals".
- 2. Irma Perez: She advised us to define what will be our benefits.
- 3. Maria Tellez: She told us to make clear that we use coconut shells waste to make our products.
- **4. Marina Salazar:** She recommended us to make emphasis on our sustainable cause and our principal social impact which is to provide jobs for women.

As well, we procure to have an opinion about our new mantra of participants in past editions:

- 1. Jukari Wong (Second Chances) "I like it, you cover all the aspect like, what you do, how, who are the beneficiaries and the purpose of the project"
- 2. Itzel Dozal (Fiber Good) "I like the mantra, is very concise and immediately gives you an idea of what you do and its purpose"
- 3. Anahy Castelan (Fiber Good) "It is understood very well"
- The one-liner is widely shared/promoted by others
- We made a post on our instagram page to share with our followers our mantra and they could give us an opinion. Here are some statements we obtain:









Yamileth Mota "I find it super creative and innovative"

Evan Espinosa "It's nice"

Marian Escobar "I really like your mantra, I find it very interesting"

Lizeth Cruz "It's catchy and as reading it I can understand what you do"

Team active in 2024 edition signifying hands "Amazing"

A2. Business model overview

A2.1 Economic values.

Ecoco generate revenue by offering high quality mosquito repellents and pots made with coconut fiber, contributing to responsible consumption and ensuring the company's long-term profitability.

A2.2 Social values.

We reduce the pollution of chemical agents and mosquito-borne diseases by creating sustainable products, using the waste of coconut shells while providing jobs for its production.

A2.3 Our mechanisms to capture values.

We collect the coconut shells discarded by local sellers, generating jobs to transform them into sustainable products to our customers.



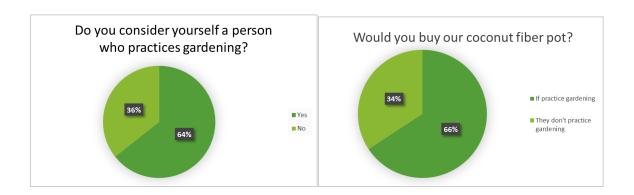




A3. Growth potential

A3.1 The target market's potential is large

The potential target of the pots are people who practice gardening or like plants, so we conducted a survey through the Google forms platform to 300 people from the state of Veracruz to determine the target market and find out how many people practice gardening in Veracruz and how many of them would be willing to buy our products.



It was obtained that 36% of those surveyed mentioned that they do garden and 66% would buy our coconut fiber pots, while 64% do not practice gardening and 34% of them would buy our product.

Therefore, according to research by GFK An NIQ Company (2017), almost a third of the online population in 17 countries does gardening tasks on a daily or weekly basis. A quarter of that group (24%) gardens at least once a week, and 7% do it every or almost every day. This beats the 24% who say they never garden.

Among all countries surveyed, daily or weekly gardening is most popular in Australia, where 45% of the online population say they do it. They are followed by China, Mexico, the United States and Germany, with percentages of a third or more.

For this reason, Ecoco seeks to position itself in the market at a national level and then be able to expand internationally to these countries by exporting coconut fiber pots to gain a broader audience.

Regarding the repellent, our main target market is people who live near wetlands because in those areas it is easier for mosquitoes to generate and spread, so our repellers are perfect to cover that market segment.







Thus, in a United Nations article it mentions that wetlands only cover about 6% of the earth's surface, more than 1 billion people (one eighth of the earth's population) living in rural and urban areas throughout the world, world depend on wetlands for their livelihood.

In an article from the Pan American Health Organization (2024), the Dengue is transmitted by the bite of an infected mosquito. It is an illness that affects infants, young children, and adults, with symptoms ranging from mild fever to incapacitating high fever, with severe headache, pain behind the eyes, muscle and joint pain, and rash. The illness can evolve to severe dengue, characterized by shock, respiratory distress, severe bleeding, and/or serious organ impairment. The disease has a seasonal pattern: most cases in the southern hemisphere occur in the first half of the year, and most cases in the northern hemisphere in the second half. This pattern corresponds to the warmer, rainy months.

In the Americas, Aedes aegypti is the mosquito vector that is the main source of dengue transmission.

Dengue incidence has increased in the region over the past three decades.

- 1. Approximately 500 million people in the Americas are today at risk of dengue.
- 2. The 4 dengue serotypes (DENV-1, DENV-2, DENV-3 and DENV-4) circulate throughout the Americas, in some countries simultaneously.
- 3. Aedes aegypti is widely distributed in the Americas.

Because we seek to help increase responsible consumption, Kantar Worldpanel conducted a study called "Who Cares, Who Does?" Latam 2021" which refers to the concept of the responsible consumer, identifying three types of consumers, pointing out some key data about Mexican consumers:

- Eco-Actives: They are characterized by their concern for the environment and by taking advantage
 of actions to reduce their waste. In 2019, this category represented 4% for Mexico and by 2021, it
 increased to 18%.
- Eco-Considerers: These are those who take certain actions to reduce environmental impact, but less frequently than Eco Actives. In 2019, this category represented 16% of Mexican consumers and by 2021, it increased to 39%.







• Eco-Dismissers: These are people who have little or no interest in environmental issues and do not take any action to help the ecosystem. In 2019, this group represented 79% of Mexican consumers and by 2021, this figure decreased to 43%.

On the other hand, Kantar Worldpanel mentions in recent figures that sustainability is increasingly important for Latin Americans. The most ecologically conscious, which we call Eco-Actives, represent 16% of consumers and by 2031 they are projected to grow by more than 40% in value, that is, they will increase their spending share in the market.

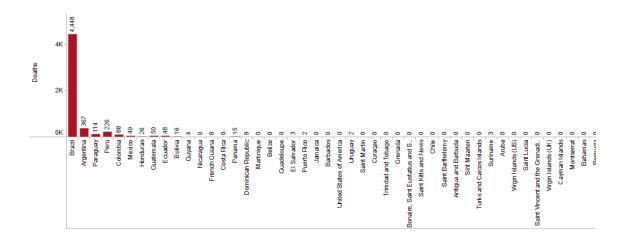
A3.2 The scale and scope of the target social/environmental issues are significant.

Social problem

1.- Mosquito disease prevention.

The scope we have with the repellents is to solve the problem of diseases transmitted by mosquitoes such as dengue, Zika, chikungunya, among others, with coconut fiber and citronella mosquito repellents.

According to data from the Health Information Platform of the Americas (PLISA), the main countries of death from dengue are: Brazil, Argentina, Paraguay, Peru, Colombia, Mexico, Honduras, Guatemala and Ecuador.



Chikungunya cases in 2024 in the Americas are 346,948 with a total of confirmed cases of 221,231. (PAHO/WHO Data - Chikungunya, s. f.)







Chikungunya Cases 2024

Region	Total	Confirme	ed
The Americas	346,948	221,23	31
Regions	Reporting Countries	Countries not reporting	% of Reporting Countries
Andean	4	0	100%
Caribean	5	1	80%
Central America Ithsmus and	Mexico 7	0	100%
Latin Caribbean	1	0	100%
North America	2	0	100%
Southern Cone	5	0	100%

Regarding the Zika virus, the cases reported in the Americas in 2024 were 24,676 and 8,496 confirmed cases. (PAHO/WHO Data - ZIKA, s. f.)

ZIKA Virus Cases 2024

Region	Total	Confirm	ed
The Americas	24,676	8,496	5
Regions	Total Countries	Countries not reporting	% of Reporting Countries
Andean	4	0	100%
Caribean	5	0	100%
Central America Ithsmus and Mexico	7	0	100%
Latin Caribbean	1	0	100%
Latin Odnobodin			
North America	2	0	100%

Taking into account that in order to solve the problem worldwide we first have to expand our presence at the national level, hoping to have a positive impact on public health in states that face a high risk of contracting diseases transmitted by mosquitoes.

In 2023 in Mexico, 42,203 thousand cases of dengue were recorded, among the top 10 states with the most reports were Yucatán with (9,406) cases, Veracruz with (8,951), Quintana Roo (4,046), Morelos (3,307), Puebla (2,753), Chiapas (2,649), Tabasco (1,887), Guerrero (1,876), Oaxaca (1,562) and Campeche (1,451). iO Foundation. (2023).







2.- Unemployment of women in vulnerable conditions.

It is considered that unemployment is a problem that exists in society according to the rates presented in the Mexican national territory. The Government of Mexico mentioned that during the fourth quarter of 2023, the economically active population of Veracruz de Ignacio de la Llave was 3.55 million people. The employed labor force reached 3.49 million people (38.5% women and 61.5% men).

In the fourth quarter of 2023, the labor participation rate in Veracruz de Ignacio de la Llave was 55.9%, which implied an increase of 1.53 percentage points compared to the previous quarter (54.4%). 67.4k unemployed were registered (unemployment rate of 1.9%).

Regarding the report of the National Institute of Statistics and Geography (INEGI) 2024, it mentions that in the month of June the unemployed population was 1.6 million people and the unemployment rate (TD) was 2.6% of the EAP (economically active population). Compared to May 2023, the unemployed population decreased by 149 thousand people and the unemployment rate was lower by 0.3 percentage points.



For this reason, we seek to employ vulnerable women for the production process of our pots, teaching workshops through the municipal women's institute of the state of Veracruz and taking that workshop to other states of the Mexican Republic and rural communities.

This advertising flyer shows the invitation to the workshop that will be held on Mondays and Wednesdays starting June 15, 2024 to the women of the Municipal Women's Institute in Veracruz.

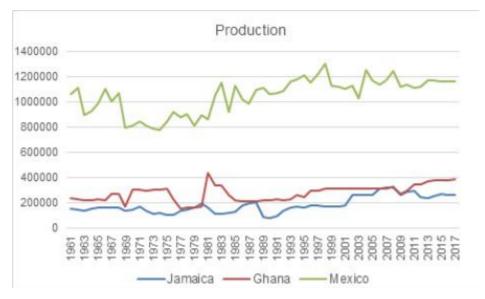
Environmental problem

Coconut is the sixth most cultivated fruit in the world: it is grown in 93 countries, covers 12.3 million hectares, has an annual production of more than 60 billion nuts, and provides a total production value of USD\$ 6.5 billion. More than 70% of the world area producing coconut is concentrated in the Philippines (29%), Indonesia (25%), and India (17%). Jamaica and Ghana occupy a marginal position of worldwide coconut production (0,5%), while Mexico is one of the ten biggest producers. (Tropicsafe, 2020)









Source: Coconut production (tons) in Jamaica, Ghana, and Mexico 1961-2017 (tons) (FAOSTAT)

Taking into account the information presented by the Ministry of Agriculture and Rural Development (2022), Mexico is an important coconut producer in the world, being the 7th largest coconut producer worldwide. In terms of production, Mexico produced 474,139 tons in 2022 and exported 25.9 thousand tons in 2020.

Around 85% of the husks from the nearly 50 billion coconuts grown worldwide are tossed as waste, putting fuel to the flame that is global pollution. The husk of the coconut is removed during processing, and millions of tonnes of husk are generated each year. There are around 745,657.1million tonnes of coconut consumed in Malaysia each year. Malaysia is forced to import coconut from Indonesia and the Philippines to make up for a yearly deficit of 250,126 metric tonnes (mt) caused by overconsumption. (Wahab et al., 2023)

According to the World Bank's new report What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050, if urgent action is not taken, global waste will grow by 70% from current levels by 2050.

High-income countries, while representing 16% of the world's population, generate more than a third (34%) of the world's waste. The East Asia and Pacific region generates almost a quarter (23%) of the total. Likewise, waste generation in sub-Saharan Africa and South Asia is expected to triple and more than double, respectively, by 2050.

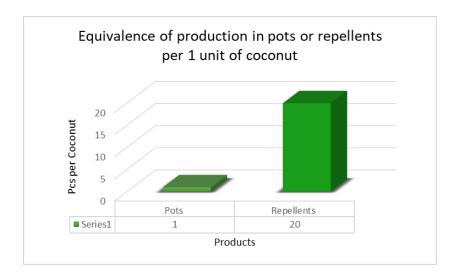






The report notes that having adequate waste management systems is essential to building a circular economy, in which products are designed and optimized to be reused and recycled. As national and local governments shift to the circular economy, incorporating smart and sustainable ways of managing waste will help promote efficient economic growth and minimize environmental impact. (World Bank Group, 2018).

To reduce this problem, we seek to create strategic alliances to increase our suppliers by 200%. As a result, we obtain that by rescuing a complete coconut shell we can obtain an average-sized pot or 20 repellents.



As a result, Ecoco during its first year seeks to have an economic, environmental and social impact in the following way:

Ecoco's impact in the first year			
Economic \$9,376 USD	Environmental 3,600	Social \$17,292 USD	
Annual profit to be a sustainable business and keep generating a positive impact on society and environment.	in landfills or burned.	72% of total costs translates directly to our social impact (labor)	







A3.3 There are opportunities to avoid fierce competition.

Nowadays there are various alternatives in biodegradable pots available on the market. It is a fact that we are not creating a new solution, however Ecoco wants to join the companies that are already implementing this solution and be part of the change.

Our direct competition is:

Establishment	Place	Online store
E-MA Orgánicos	Mexico	https://www.e- maorganicos.com.mx/
The Home Depot	Mexico	https://www.homedepot.com.m x/jardin/macetas/macetas-de- barro-arcilla/maceta-fibra- coco-12-pulgadas-dorado- aguasav-308404
SODIMAC	Mexico	https://www.sodimac.com.mx/s odimac- mx/content/a1430001/Tiendas/
Siyapath Productions	Colombo, Sri Lanka	https://www.etsy.com/mx/shop /SiyapathProductions?ref=shop -header- name&listing_id=1046256912 &from_page=listing
AgriExpo	Mexico	https://www.agriexpo.online/es/fabricante-agricola/maceta-biodegradable-4328.html
La Semilleria	Mexico	https://www.lasemilleria.com/ Catalogo/Macetas- Biodegradables
FKuR Plastics-made by nature	EEUU Germany India	https://fkur.com/es/aplicaciones /macetas-de-bioplastico/
Eco promocionales	Mexico	https://www.ecopromocionales. com.mx/category/macetaspromocionales/







Hydrocultura	Mexico	https://hydrocultura.com/products/macetas-de-turba-organica-biodegradable
Kaiseki	Mexico	https://www.kaiseki.com.mx/
Cocopot	Spain	https://www.cocopot.es/
Invernaderos MX	Mexico	https://www.invernaderosmx.c om/
Ellepot	Norway	https://www.ellepot.com/es/

Indirect competitors:

Establishment	Place	Online store
Just Home Collection	Mexico	https://justhomecollection.com/
The Home Depot	Mexico	https://www.homedepot.com.m x/b/jardin/macetas/macetas-de- plastico?frame=1
SODIMAC	Mexico	https://www.sodimac.com.mx/s odimac- mx/category/cat11473/macetas- y-accesorios/
Tugow	Mexico	https://tugow.mx/collections/macetas
New Garden Shop	Mexico	https://newgardenshop.mx/coll ections/maceteros
Trinitate	Mexico	https://trinitateshop.com/collect ions/macetas
Pottery Barn	EEUU	https://www.potterybarn.com. mx/tienda/macetas-y- floreros/catst15991679
Corner Home	Mexico	https://comerhome.com.mx/col lections/macetas#3d73/fullscre en/m=and&q=macetas
Macetón	Mexico	https://maceton.com.mx/







Pasquini e Bini	Italy	https://www.pasquiniebini.com/es/
Discom Grup	Spain	https://discomgrup.com/maceta s-por-mayor/
Plantlogic	Mexico	https://getplantlogic.com/es/ho me-esp/

The indirect competition we currently have for pots are brands that offer plastic, metal and ceramic pots.

Regarding mosquito repellents, although our direct competition is mostly liquid alternatives, there are still no coconut fiber repellents with citronella like the ones we are offering to the market, this being a competitive advantage on our part.

Our direct competition is:

Establishment	Place	Online store
Remedios del Bosque	Mexico	https://www.amazon.com.mx/st ores/RemediosdelBosque/page/ 927A50AE-552F-4DE4-AD17- 58B2922A8C24?ref_=ast_bln &store_ref=bl_ast_dp_brandLo go_sto
Kepler	Mexico	https://www.keplerproducts.co m/repelentes-kepler
Sin mugre	Mexico	https://sinmugre.com/
Immi	Mexico	https://immi.mx/
Arbora	Mexico	https://arbora.com.mx/
Neuderma	Mexico	https://thenaturalcare.shop/







Indirect competitors:

Establishment / Brand	Place	Online store
LEIDSANY Bracelet	Mexico	https://www.amazon.com.mx/s ?k=LEIDSANY+Brazalete&ref =nb_sb_noss
Repel	EEUU	https://www.repel.com/
Autan (SC Johnson)	Italy	https://autan.it/it-it
Baygon (SC Johnson)	Indonesia	https://www.baygon.co.id/id-id
Off! (SC Johnson)	EEUU	https://off.com/en-us
Polil Raid	Spain	https://contact.scjbrands.com/e s-es
Raid	EEUU	https://www.raid.com/en-us

However, our indirect competition of mosquito repellents are products which are composed of chemical agents that harm the health of consumers and the environment.

Our direct competition for natural repellents have a high cost and do not offer the same presentation as us, most of them are liquid application. Direct pot competition does not offer products made from 100% coconut fiber, so we offer a distinction in presentation, price, scope and that they are not harmful to health and the environment.

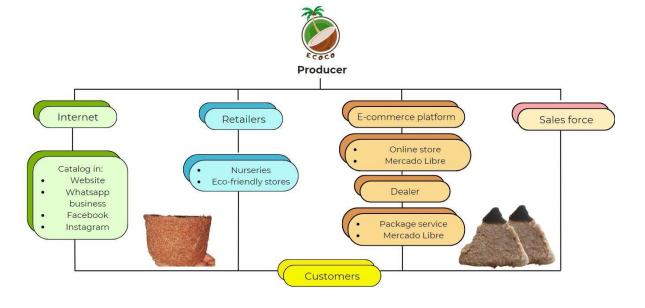
Multichannel distribution strategy

Due to the competition we currently have in the market, a multi-channel distribution strategy was carried out so that we can have more presence in the market, covering different avenues so that clients and potential clients have more accessibility to our products, creating loyalty over time. Below is our multi-channel distribution system.



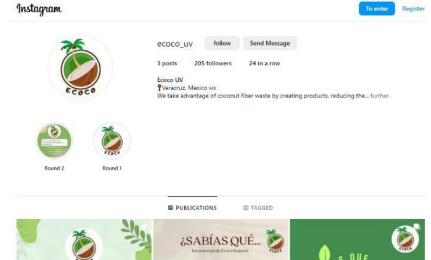








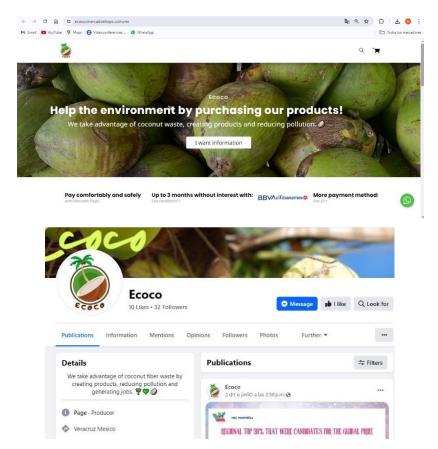
The previous image shows our multichannel distribution system where you can see four distribution channels. The first is the interaction of Ecoco through the Internet on its networks and website, sharing the catalog of available products and new launches to customers.











The second way is from producer to retailer and customers; where Ecoco will have strategic alliances with retailers such as nurseries and eco-friendly stores which can offer our products to their customers, creating an opportunity for us to have new potential customers and more people to know and try our products.



The third way is the E-commerce platforms, an online store and an account were created on the MercadoLibre platform where you can find our available products and their characteristics, you can also place an order with the pieces that the consumer wants. , having a distributor in this case contemplating parcel services and Mercado Libre's own delivery service to be able to reach the final consumer. Finally,

the sales force that Ecoco has to be able to understand the preferences of our end consumers.







A3.4 The window of opportunity is large and immediate.

Mosquito-borne diseases kill more than a million people and infect up to 700 million each year – almost one in ten people. As the planet warms and climate change lengthens mosquito season, the world's deadliest creature will expand its geographic range to new regions and re-emerge in areas where mosquito numbers had declined for decades.

Extreme weather patterns such as droughts, heat waves, floods and rainfall are increasing in severity and regularity across the world. All of this creates favorable conditions for mosquitoes to reproduce and could contribute to the spread of their viruses to higher latitudes and altitudes.

Although there are more than 3,000 species of mosquitoes in the world, the most serious diseases such as dengue, chikungunya, Zika and yellow fever are transmitted by only two: Aedes aegypti and Aedes albopictus (also known as the Asian tiger mosquito). Dengue, the world's fastest-spreading mosquito-bome disease, is estimated to infect more than 390 million people per year, with more than half of the world's population currently at risk. (Explainer: How Climate Change Is Amplifying Mosquito-Bome Diseases|World Mosquito Program, n.d.)

B1. Key Capitals

• Strong evidence about having the right human capital

We focus on developing competencies with courses to improve our skills and abilities, as well as applying the expertise of our coaches and partners to learn and improve.

Our commitment raised in team members are enrolled in courses to develop new skills and apply them in the project.

Google course "Project management" in coursera









Course ISO 9001:2015 about quality management online the 19th july.

CURSO GRATIS ISO 9001:2015

¡Tu registro ha sido exitoso!

Te esperamos el día 19 de julio en punto de las 6.30 pm (Tiempo centro de México).

Espera un mensaje de confirmación en los próximos días junto con el link de acceso.

Submit another response

Here are some photos of our team member Karime Lazaro and coaches participating in the 2023 edition.











Stakeholders	Contribution to the project	Evidence
The king of coconut	They provide us with coconut shells, so we can extract coconut fiber and make our products.	
Municipal Women's Institute	For our production stage, we implement the women of the Institute.	
Department of Chemical Engineering	They help us with technical knowledge and studies done to our products to know their efficiency	

• Strong evidence about having the right social capital

Community Partnerships: recently we have visited center gardens and talked to them about our pots. They told us that it was an awesome project with a great future. We expect to have them as distributors.











Coconut vendors: They are our main stakeholders because they supply us our raw material: coconut fiber.

To have local data we interviewed 6 coconut sellers in the city of Veracruz. According to the statistics, in a day an average of 153 coconut shells are wasted. Five out of six sellers throw coconut shells in the garbage, and one of them burns it. This is the case of Mrs. Esther Guerrero, a coconut water seller, who burns 80 coconut shells a day.

Lucia (Carr. Veracruz - Medellín Dos Bocas, Veracruz).	
Patricia (Laguna Real Carr. Veracruz - Xalapa Laguna Real, Veracruz).	
The king of coconut (J.B Lobos, David Alfaro Siqueiros Supermanzana)	
Esther Guerrero (Carr. Veracruz - Medellín).	A A I I I I I I I I I I I I I I I I I I
Emir Barrios (Av. Medellín Dos Bocas, Veracruz).	







Amairany.



Government and expertise: For this round we had the opportunity to talk to Jorge Palavicini (Director of environment and sustainability office in Minatitlan) and Oscar Velazquez (Ph.D Chemical Engineer working at Department of Chemical Engineering).

They gave us suggestions to improve our project in their respective areas.



Impact Network

Recently we contacted a tv show in Veracruz, called "Veracruz Agropecuario" with 44 years on air and 576, 777 followers on Facebook.





We talked to them about what we do and proposed to them to be our stakeholder to promote the project. They agreed to do an interview in the study.







Strong evidence about having valuable intellectual capital





With the partnership of the Bioanalysis Laboratory of the Universidad Veracruzana, we got a technical study made on our repellents by Carolina Barrientos Salcedo, PhD Full Professor, member and head of the Research Medicinal Chemistry Laboratory Faculty of Bioanalysis. (the result in PDF was published in the page)

Thanks to that, we can affirm that our repellents are not toxic for people and the citronella we use is effective to repel

mosquitos bites.

We are looking to protect our trademark and logo. July 3rd via zoom we had a meeting with the director of the office of technology transfer of Universidad Veracruzana and Areli Gonzalez who is the person in charge of registrations at the IMPI (Mexican Institute of Industrial Property).





She told us what the registration process would be, starting with the searching of "Ecoco" at IMPI (The Mexican Industrial Property Institute with the legal authority to administer the industrial property system in Mexico) to verify that "Ecoco" was a free name and logo design. The process will take approximately 6 months.







• Strong evidence about having the right manufactured capital



In the future we expect to integrate sustainable practices, for that we will plan to invest in solar panels to our manufacturing processes. We searched vendors in Veracruz and found "easy energy" which already made contact to give us a budget.

Total: \$3,268 USD

B2. Business traction

B2.4 Proof of market acceptance

Ecoco, to ensure that the market accepts our products, conducted another survey specifically aimed at our main target markets, such as people who practice gardening for our pots and people who live near lagoons in the state of Veracruz for our mosquito repellent..

• Coconut fiber pots

We shared our surveys in specific gardening and nursery groups throughout Mexico, obtaining a sample of 100 people.















• 72 people are dedicated to gardening.

72 of them are people surveyed through gardening practice groups throughout Mexico, where comments such as that of **Ixchel Zuñiga stood out.** "I would buy this pot".

As well as that of **Norma Candelero**, who comments that it is a product ready for the market, and it is just a matter of putting an attractive price on it.



Many of the other comments were assertive, expressing that it is a good initiative and above all that it will help the environment with our coconut fiber pots.

On the other hand, the pots were presented to 9 Nursery establishments

• Mr. Juan Horacio, Xochitl Nursery, Minatitlán Veracruz

Mr. Horacio is interested in being a distributor of the pots, selling them as handmade pots. In addition, he assured that this type of pots are very good for small plants such as succulents.











• "La Bomba" Nursery located in Minatitlán Veracruz.



• On the other hand, nurseries from different states of the Mexican Republic: Sucu House, Michoacán: Willing to market, once a competitive price has been established.









Fypo, Salina Cruz, Oaxaca: They see a great future in our pots from the artisanal aspect.



The rest of the respondents (19 people) are gardeners who practice it in their homes. As is the case of Aldair Marin, who comments that with our pots they would help their plants improve their growth and promote responsible consumption.



Social media survey:

Instagram:



94% of 210 respondents stated that they would buy our pots in pre-sale.

These responses indicated a high acceptance of our coconut fiber pots in the market, highlighting their positive impact and commercial viability.







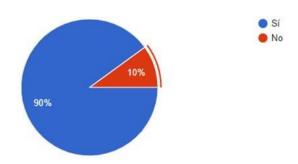
Mosquito repellents

We conducted surveys of 85 residents of a suburban subdivision in Veracruz called Laguna Real to evaluate the acceptance of our coconut fiber mosquito repellents.

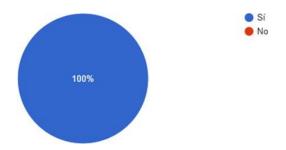


Results of the test:

• 90% of respondents indicated that they would purchase the repellent.



• 100% would be willing to try a free sample.









• Comments arose as a suggestion to increase the size of the product to increase its duration, which we have taken into account.

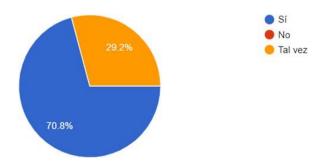
We also surveyed 74 people from other areas who face mosquito problems:



Results of the test:

Would you be willing to buy our mosquito repellents made of coconut fiber?

- 70.8% stated that they would buy the repellent once it was available.
- 29.2% responded "maybe"









Ecoco social media survey

Instagram: 90% of our followers indicated that they would purchase the repellent in pre-sale.



Conclusion:

Studies carried out by Ecoco have shown the popularity of our products, coconut fiber pots and mosquito repellents. The positive market response demonstrates that we are prepared to market our products in a way that meets the needs of consumers and, at the same time, has a significant impact on Mexico's society and environment.

B2.5 Proof of social solution adoption

- Proof of social adoption are 2:
 - 1. Coconut fiber pot making workshop for vulnerable women at the Municipal Women's Institute in Minatitlan, Ver.

To demonstrate the adoption of our social solution, we delivered the coconut fiber pot making workshop to women attending the Municipal Institute of Women in Minatitlán, Ver. This workshop focused on the step-by-step production of coconut fiber pots, providing the ingredients and materials. Ecoco seeks to generate a decent source of income for the women of this Institute in the future.

The women who attended the workshop described it as a relaxing activity, and many of the participants are interested in working with Ecoco in the production of coco fiber pots in the future.







This workshop not only opened up technical knowledge, but also empowered the women to start generating their own income in this way. By offering this employment, Ecoco seeks to reduce the economic vulnerability that many women face today. Also, Ecoco wishes to replicate this activity in more municipalities and states with more vulnerable women, this in order to continue empowering them, the next workshop will be held on July 15, 2024 in Veracruz port, where our social adoption will be doubled.

















• A resident near a lagoon puts our repellent to the test

Our repellents are designed to combat mosquito bites by repelling them without the need to kill the insects. Our social adoption, as we have mentioned before, is to help fight mosquito bites and the diseases they can cause such as fever, headache, dizziness, etc. Therefore, for this test, we sent 2 samples of mosquito repellents to Mrs. Rita Leticia, who has her residence very close to a lake in Minatitilán, Ver., which causes a considerable increase of mosquitoes at night, especially during the rainy season.

Mrs. Rita tested our repellents for one hour, and noted that in her home mosquitoes are most annoying between 5 and 8 pm. She used the repellent from 5 to 6 p.m. and commented that it helped to repel the mosquitoes with its citronella scent. She also mentioned that the smell was not unpleasant; on the contrary, she described it as a pleasant fragrance from her point of view.











B3.- Risk Management

B3.4 The analysis is based on valid data form statistics, interviews, observation.

1	Market Risk	Preference in other more popular brands
2	Financial Risk	Limited investment
4	Operational risk	Dependence on the production of a shredding machine
5	Environmental risk	We depend on the weather, for the correct drying of our product

1.- Preference in other more popular brands

1.1.- Market Risk

One of the biggest risks in today's highly competitive environment.

• Pots:

The global nursery planters and pots market size was \$1,287.3 million in 2020 and will reach \$1,492.7 million by 2027. Around the world there are many international and domestic pot producers with competitive prices, placing Ecoco at a very dangerous risk of competing with a growing market. (The Insight Partners)







However, according to business research insight, it confirms that the latest trends in pots are those that are manufactured with sustainable products, which is expected that the gardening industry will adopt these trends and reduce the consumption of plastic in presentations such as the pot.

In addition, the competition that exists in Mexico is very strong, since only in "Mercado Libre", an online store, it was observed that there are more than 50,000 products registered for sale, with different designs, colors and materials.

• Repellents:

The estimated mosquito repellent market volume in 2024 is 5.32 billion dollars, by 2029 an increase is estimated to be 7.52 billion dollars. On the other hand, a study conducted by the National Administration of Medicines, Food and Medical Technology of Argentina, registered more than 100 mosquito repellent products (listed as a cosmetic product) in the period 2019. In its vast majority several of these products belong to a very famous company called S C JOHNSON & SON.

In Mexico, in a quick search in the e-commerce "mercado libre", more than 7,300 products were registered for sale, with different presentations such as aerosol, liquid, cream, etc.

2. Financial Risk

Ecoco has posted on kickstarter, a crowdfunding foundation; the project and thus be able to raise funds, however, it has been observed that the collection has been very minimal. The low investment that Ecoco is going through is a very crucial financial risk as it will depend on this if Ecoco can continue with its production.

On the other hand, according to the latest World Bank report, global growth is expected to slow down to 2.4% in 2024. In addition to this, in the United States, a decrease in funds could be seen where they were reduced by about 24% year-on-year in 2022. (Financial Services)

According to a study conducted by the president of SAP Mexico, Angela Gomez, mentions that in 2022 one million SMEs businesses had to close their doors because they face challenges very little surmountable, among them inflation, where they require strategic investments. (Mexico Business).

This type of risk is present in many businesses where they need to improve their technological advances, however, it may not be possible due to the little financial capital they have. For that reason Ecoco will give







more scope to its fundraising with more crowdfunding platforms and networking events and at the same time participate in business incubators.

3. Operational Risk

According to the report published by Senseye, large industrial facilities lose more than a day of production each month and hundreds of millions of dollars annually due to machine failures. In addition, the True Cost Of Downtime report found that large manufacturing facilities are at risk of losing more than 300 hours of production per year due to machine breakdowns, resulting in lost revenue and downtime of their human capital. This type of risk involves not only production downtime, but also large financial costs due to downtime. These types of costs in organizations are estimated at \$864 billion, the equivalent of 8% of their annual revenue. (Blog Isa)

Alexander Hill, head of global strategy at Senseye, mentioned that unplanned downtime in the industrial

sector is listed as one of the biggest challenges.



"When expensive production lines and machinery stop running, organizations stop generating revenue and those investments start costing instead of making money. Costs can amount to more than \$100,000 per hour for large manufacturers in almost every industry sector."

(Isa Blog)

If this type of risk comes to Ecoco, it is important to implement a strategic solution to solve problems in production. Although the production quantities are lower than compared to these reports, Ecoco is not exempt from these risks, on the contrary, it is important to recognize that the failure of a machine is a risk which must be foreseen and managed continuously.

4. Environmental Risk

In order for our products to be ready for sale, they need to be exposed to the sun for a long period of time for proper drying, however, our production center is located in Veracruz. In Veracruz, the great climatic changes are more evident, the rainy season is from June to November, where the rainiest month is September (285.9 mm) according to the National Institute of Ecology and Climate Change (INECC).







The cloudiest part of the year begins around May 28; it lasts almost 5 months and ends approximately on October 25. The cloudiest month of the year in Veracruz is September, during which on average the sky is cloudy or mostly cloudy 82% of the time (Weather Sparks, During those almost 5 months, our production may be affected by not having a solar source for air-drying our products, which would imply that our inventories would be broken and our production planning would be affected.

B4.5 Proof of benchmarking on the industry's practice

Empresas mexicanas:

1.- Market Risk

Industry Industry practice Xile Chile: an ordinary product to a desired one. This is the case of Eugenia Rodriguez, who exemplifies the power of marketing. She started selling candy with salty and spicy flavors and then turned it into a gourmet candy thanks to her **Xile.Chile:** great branding strategy. Mexican company dedicated to the sale of sweetened candies with spicy flavors. The cornerstone of this transformation is branding. Each season, a theme is chosen and then distributed to the most influential content creators, who capture their lifestyle. Distinctive packaging, with carefully selected designs and colors, gives Xile Chile a unique identity that resonates in the marketplace. 01

2.- Financial Risk

Industry	Industry Pratice
CASA TOÑO LA CASA DE TODOS	La casa de Toño is a well-known company in Mexico that encompasses typical Mexican flavors. According to the CEO of this company, Miguel Prado, who says that at the beginning of this "small" business, the investment was very







"La casa de Toño"

Mexican company, dedicated to the sale of Mexican snacks.



limited and even null.

This led him to establish different strategies, such as a precise planning of the budget to cover the payment of suppliers and above all, he always sought to increase his alliances, with this he managed to get more than 60 branches throughout Mexico.

4.-Operational Risk

Industry



CEMEX

Mexican company dedicated to construction materials with machinery and equipment.



Industry Pratice

Cemex, the construction leaders in much of Latin America, has machinery and equipment to offer its services, such as telescopic handlers. For this type of machinery, Cemex employs predictive and preventive maintenance. This approach allows Cemex to optimize the time and quality of its projects, minimizing risks related to planning and organization.

In addition, Cemex employs leading technologies to constantly monitor its machines, ensuring their operability at crucial moments.







5.- Environmental Risk

Industry Pratice Industry Bimbo has stood out in many countries for its exquisite bread recipes, catapulting it to GRUPO international success, but it is aware that climate change is being affected by so many industries such as the food industry, so it has implemented environmental standards such as: renewable energy in its plants, fuels with a more efficient management of water use. "BIMBO" Empresa mexicana comercializadora de pan Its concern for carbon emissions has led the https://youtu.be/ptRkCa5qPrA company to a 9% reduction of emissions, equivalent to more than 146 thousand tons of CO2 in 2020 globally. They also set achievable goals such as reducing the use of industrial refrigerants and replacing them with natural ones (Bimbo, 2021).

C: ESG Performance

C1: Overall impacts on the society and environment

- Risk analysis
- Waste generation when producing our products: How much waste do we generate?

Coconut shells take 10 years to decompose. Currently, approximately 3 million tons of coconut shells are generated each year, of which only 15% are used (Sustainable Architecture, 2024).

Ecoco contributes to the rescue of coconut shells that end up in landfills and are subsequently burned; we transform them into sustainable products. However, only the coconut fibers, belonging to the intermediate layer of the coconut, called mesocarp, are used for the production of the products. In this way, at least 5% of the coconut is discarded, part corresponding to the epicarp, the outer layer of the coconut.







KPI: How much waste do we generate in 6 months?

Objective: Reduce epicarp waste.

Strategy: Partnership with entities dedicated to composting for the utilization of this raw material, obtaining an extra income.

Volume of epicarp discarded:

50 coconuts * 6 sacks of 10 kg each = 300 coconuts 300 coconuts * 200 gr. = 60 kg of rescued coconut 5% of the coconut is discarded = 10 gr each 300 coconuts * 10 gr. = 3 Kg * 6 = 18 kg discarded

5% of the salvaged raw material corresponding to the epicarp (hard outer layer of the coconut) is not useful in the production process.



Strategy:

The coconut shell can be given another use to avoid waste; it is useful as fertilizer for plants, but it also has a place in the manufacturing industry, being raw material for the production of activated carbon water filters in purifiers.

Thus, instead of simply discarding the coconut shell, we are creating alliances with potential customers, and in this way, in addition to avoiding waste, we generate extra income.

Examples:



Vivero Medellín. Carr. Veracruz - Medellin Arboledas de San Ramon, Ver.









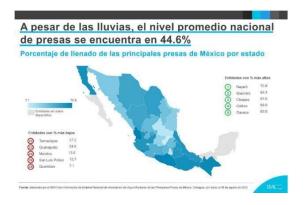
"Cristalita" Purifying, Río Nilo 756B, Las Vegas II, Boca de Río, Veracruz.

• Resource management: How much water is used for production?

Currently, most of the municipalities in Veracruz have a severe water shortage. According to the National Water Commission (CONAGUA), the state of Veracruz in 2023 experienced the driest year on record in the last 42 years.

The problem not only affects Veracruz, but the entire Mexican Republic; according to the UN, droughts will double by 2050. Droughts have multiple causes including climate change, population growth, overexploitation of water and deforestation. Climate change alters precipitation patterns and makes rainfall unpredictable (Mexican Institute for Competitiveness, 2023).

Despite the rains, the national average level of dams is at 44.6%.



Source: Prepared by IMCO with information from the National Water Information System Monitoring of Mexico's Main Dams (CONAGUA), 2023.







KPI: Water consumption for production in 6 months

Objective: Monitoring of water consumption in production.

Strategy: In the high rainy season, establish a water collection system.

Measurement: 6 months ahead

Consumption of water for the production of repellers (Lt):

3,000 * 7.7 ml / 1,000 = 23.25 L * 6 months = 139.5 L

Consumption of water for the production of pots (Lt):

150 * 250 ml / 1,000 = 37.5 L * 6 months = 225 L

In a span of 6 months, Ecoco will have consumed a total of 364.5 liters of water for the production of its products.

However, Ecoco's water consumption for the manufacture of pots compared to the water consumption and environmental damage brought about by the manufacture of plastic pots, is lighter than the water consumption used for the manufacture of conventional plastic pots.

Commonly, containers and pots for plants are made of polypropylene, a petroleum-derived plastic (Fkur, 2024). Thus, according to Green Team, 2,000 liters of water are used to manufacture each kilogram of polypropylene materials, and to compensate for its manufacture it must be reused at least 52 times.

According to Green Match UK 2024, the global production volume of polypropylene was approximately 79.01 million metric tons in 2022; by 2030, its production is estimated to increase to 104.99. However, Ecoco is aware that its water consumption can potentially affect such a vital and scarce resource. Therefore, it has developed a strategy to reduce its consumption of drinking water, which consists of a rainwater collection system that, with the help of chemical engineer Oscar Velazquez, can be disinfected by adding 400 ml of chlorine for every 19.6 Lt of water.



In 6 months it will be possible to reduce our potable water consumption by 30%, equivalent to 109.35 Lt, by placing 5 buckets of the following size:









• Carbon dioxide emissions generated by the sudden release of carbon dioxide and monoxide.

A social risk that one of our products represents is the possible harmfulness of our Ecoco mosquito repellent, since it is composed of organic matter and would release carbon dioxide and carbon monoxide as the main pollutant. However, according to Melody Castilla, energy engineer and our advisor in our committee, an Ecoco repellent in 1 hour will have generated 0.05346 gr. of CO2.

According to Greentology, a hamburger meat emits 53.98 kg of CO2 per kilogram.

In reality, it is better to emit small amounts of CO2 by creating a product that fights deadly mosquito-bome diseases such as dengue fever than to let coconut shells rot in nature, producing methane, a powerful colorless greenhouse gas (GHG) that is the main component of the fossil gas known as "natural gas".

Euan Nisbet, a researcher at Royal Holloway University of London, mentions that although CO2 accounts for almost two-thirds of global greenhouse gas emissions, the methane problem is just as important as that of CO2.

According to the Interamerican Association of Environmental Defense, methane is much more effective at retaining heat due to its chemical composition. Therefore, adding smaller amounts of methane to the atmosphere can have an effect equivalent to adding huge amounts of CO2. Since 2006, the amount of methane in the atmosphere has increased considerably: about 25 million tons per year.

Approximately 30% of current global warming is driven by methane from human actions (Environmental Defense Fund). The same source mentions that acting now to reduce methane emissions will have immediate climate benefits that carbon dioxide reductions alone cannot provide.



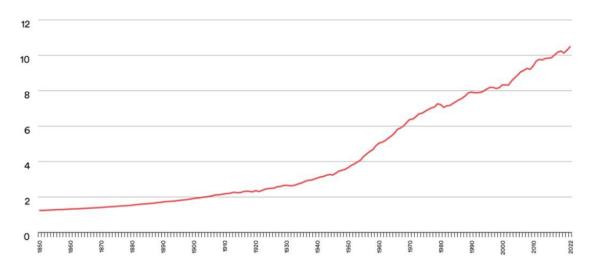




Global methane emissions (in billions of tons)

Emisiones globales de metano

En mil millones de toneladas de CO_oe



Source: Our World in Data (2022).

Evolución de las emisiones de metano en México

Source: México Evalúa, (2024).

- Social risks:
- Negative impact on the community







One risk this may bring is the misperception of Ecoco as a discriminatory company, as we currently focus on offering training courses only to women.

This may be frowned upon by other vulnerable audiences. For this reason, as a company, we are holding meetings with staff from the Children's Rehabilitation Center of Veracruz, A.C. (CRIVER).

CRIVER is a civil association that arose from the need to care for children and young people who suffer from some type of disability and require rehabilitation, including children with autism, visual impairment, Down syndrome, among others.



Offering a workshop of coconut fiber pots will help stimulate them, being part of their therapies.

An example of this is in the case of the ASD:

Children with Autism Spectrum Disorder can benefit from art therapy methods especially to improve eye contact, cause and effect relationship with cues, emotional expressions and contextual instructions. (Autismo en Vivo, 2021).

C2: Governance structure

Our first governance mechanism, which has helped us to understand the impact of our activities in 2 key areas. In this way, we were able to develop strategies to minimize the negative impact.

ESG REPORT

The Global Reporting Initiative (GRI) standards will be used for ESG performance, since:







- It has potential for use by SMEs as well as large or multinational companies.
- It is compatible with other European standards
- They are designed to be used for any type of organization, regardless of its size, sector or whether it is public or private.
- It is a flexible reporting framework, which means that it is structured in such a way that companies can make a complete report or only select those areas that apply to the company.

(Envirall, 2020).

*All standards became effective as of July 1, 2018.

ENVIRONMENTAL IMPACT

GRI 301: Materials 2016

❖ Content 301-2: Recycled materials used.

volume

Taking into account that for the monthly production of 150 pots and 3,000 repellents, 6 sacks of 10 kg each containing 50 coconuts per sack are needed:

Volume of coconut fiber recycled and used in production Objective: Monitor the volume of coconut fiber to be used in production Measurement: 6 months ahead 50 coconuts * 6 sacks of 10 kg each = 300 coconuts 300 coconuts * 200 gr. = 60 kg of rescued coconut 5% of the coconut is discarded = 10 gr each 300 coconuts * 10 gr. = 3 Kg discarded Volume of coconut fiber (kg) rescued and utilized: 60 kg - 3 kg = 57 kg of coconut used in the production corresponding to the fiber

used in production







GRI 302: Energy 2016

❖ Content 302-1: Energy consumption within the organization

Electricity consumption (in kilowatts) by production volume

Objective: Predicting our energy consumption

Measurement: 6 months ahead



14,900 kWh

GRI 303: Water and effluents 2018

❖ Content 303-1: Interaction with water as a shared resource

Water consumption for production.

Objective: Monitoring of water consumption in production.

Measurement: 6 months ahead

Consumption of water for the production of repellers (Lt): 3,000 * 7.7 ml / 1,000 = 23.25 L * 6 months = 139.5 L

Consumption of water for the production of pots (Lt):

150 * 250 ml / 1,000 = 37.5 L * 6 months = 225 L

❖ Content 303-3: Water extraction

Liters of rainwater used in production

Objective: Increasing our rainwater catchment

Measurement: 6 months ahead

Total water use * Percentage of catchment capacity







364.5 * 30% = 109.35 Lt

GRI 305: Emissions 2016

- ❖ Content 305-1 Direct GHG emissions (Scope 1)
- a. Gross value of direct GHG emissions (scope 1) in metric tons of CO2 equivalent.

Measurement: 6 months ahead

Considerando que en un mes, Ecoco realizó un viaje de 3.6 Km, en 6 meses habrá recorrido 21.6 km.

Considerando que nuestro vehículo consume 10 L por 100 km:

CO2 emissions in transport fuel consumption

Objective: Predicting our carbon emissions in transporting our raw material

Measurement: 6 months ahead

CO2 Emissions

Consumo de combustible (L/100km) x Distancia (km) / 100 * Factor de emisión

10L/100 km x 21.6 km /100 = 2.16 2.16 x 2.38 = 4.9896 kg CO2

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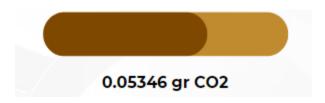
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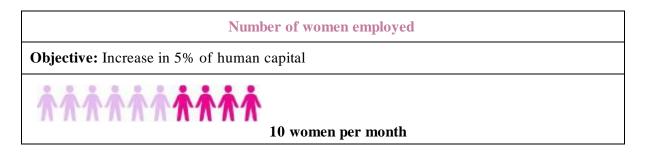
CO2 emissions per repellent



SOCIAL IMPACT

GRI 401: Employment 2016

❖ Contents 401-1 Hiring of new employees and employee turnover















2nd Mechanism:

Our second mechanism is our internal sustainability committee, composed of 4 specialists in their field:

Jorge Palavicini, director of sustainability and environment of the municipality of minatitlán, who shared with us his opinion about our project and suggestions for improvement.



Oscar Velazquez PhD, chemical engineer from the Universidad Veracruzana. Dr. Oscar gave us advice for the collection and conservation of rainwater following a chlorine disinfection formula; adding 400 ml of chlorine for every 19.6 L of water.







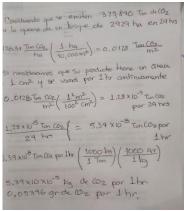






Melody Castilla, energy engineer, professor at CESUVER University.

Due to her busy schedule, we were unable to arrange a meeting, all contact was via messages. However, she was an essential actor in our ESG practices, she was in charge of calculating our carbon emissions by elaborating calculations and providing us with access to information.



Universidad Veracruzana Bioanalysis Laboratory, headed by **Carolina Barrientos** PhD. She was in charge of analyzing the components of our repellent and giving us a complete report.













Legality



We sought the possibility of registering Ecoco as a trademark, for which we received advice from the Technology Transfer Office.

The registration is done through the Mexican Institute of Industrial Property (IMPI).









D. Learning curve

• Evidence of the learning process is credible







Our principal raw material was the coconut shells to make kitchen utensils, but as we started to make them we realized that we wasted the pulp, in addition it had to be dry coconut (to obtain the hardness of the utensils) which

the process of sanding was painful and time consuming also unlike the shells we used to extract the coconut fiber, these were sold to us.



The coconut shells to obtain the fiber are usually thrown away, so that we considered it was the best option to work with.

Our first prototype with coconut fiber was cloth outdoors but due to

lack of technical resources to verify the efficiency of thermal insulation and our missing financial capital to initiate the manufacturing, we decided to not do that.



Finally, we decided to produce pots and repellents which have a positive impact on the environment and health.









• Evidence of the transformation in the mindset, behavior, and strategy is credible (individual learning)

Jennifer López (Leader and production area)

The growth of our business model has not only been in our productive city, but we have forged strategic alliances that extend to other municipalities. A significant event of this expansion has been our participation in the Women's Institute of Minatitlán, strengthening our community outreach and commitment.

At Ecoco, continuous learning and constant improvement of our products not only drive us to strive for excellence, but also for growth in the marketplace. Our leadership is reflected in every interaction and activity we carry out as a team. Each of the courses has prepared us to clearly identify the executions that we must implement in our business model in order to create impact.

Montserrat León (Co- leader and business management)

The management of the project from round 1 to this, has evolved significantly thanks to the information of the courses. In round 1 we managed to identify our root causes and implement a solution that had environmental impact, so in round 2 we made our business model and verified that our project had a future, finally in round 3 we carried out our project identifying key points for implementation and scaling.

Giovanna Rivera (ESG manager)

This round 3 has allowed us to develop a better approach to scale our project in execution. In round 1, as a team we had many ideas for leveraging our raw material, however, in round 2, we realized that some things were not as viable as we thought. Without a doubt, our Stakeholders have been a very important support during the development of our project. In each round we have improved our ability to understand our root causes, the consequences they bring and the positive or negative impact we can create as a company.

Maria Irineo (Data analysis)

Throughout this competition I have seen the evolution of Ecoco, we started with the idea of creating kitchen utensils and fabric for gardens, which we discarded due to lack of technical mechanism for their production. We decided to make pots and mosquito repellents taking advantage of the coconut fiber that is discarded







and burned without any purpose, seeing that it was more feasible to transform the fiber into these two products.

This competition is very enriching because it makes you think outside the box to be able to solve existing social and environmental problems. Likewise, I realized the importance of the skateholders interested in our project to help us achieve our objectives. This round was significant to identify the target market, scope and scale of the project, realizing that the products are profitable and the reach we can have in the market.

Karime Lazaro (Finance and marketing)

Ecoco and the team ourselves experienced a huge growth during this round, since we had to develop our problem-solving abilities, in order to identify and solve the risks that Ecoco has to face.

Along this journey we've realized how important having allies and stakeholders is, we definitely wouldn't had been able to be where we are without the enormous help we've received from our stakeholders, our coaches, and people who've wanted to join and help our project.







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